This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

No.....

BOSTON
MEDICAL LIBRARY
ASSOCIATION,
19 BOYLSTON PLACE.

THE SAINT LOUIS

MEDICAL & SURGICAL JOURNAL.

VOLUME XLVIII.

FROM JANUARY THROUGH JUNE, 1885.

BOSTON MEDICAL LIBRARY ASSOCIATION.

FRANK M. RUMBOLD, M.D., EDITOR AND PROPRIETOR.

[Established 1843.]

ST. LOUIS:
MEDICAL JOURNAL PUBLISHING COMPANY.
2622 Washington Avenue.
1885.

CATALOGUED.
EHB.
2/6/86.

CONTRIBUTORS TO VOLUME XLVIII.

C. Barck, M. D., St. Louis, Mo.
E. Benkendorf, M. D., St. Louis, Mo.
L. Bremer, M. D., St. Louis, Mo.
W. B. Craig, M. D., Denver, Colo.
Hiram Christopher, A. M., M. D., St. Joseph, Mo.
T. Christensen, M. D., Sandefjord, Norway.
N. R. Gordon, M. D., Springfield, Ill.
I. A. S. Grant (Bey), M. D., Cairo, Egypt.
Adolphus Green, M. D., St. Louis, Mo.
John Homans, M. D., Boston, Mass.
F. L. James, Ph. D., M. D., St. Louis, Mo.
Jno. H. Mc Intyre, A. M., M. D., St. Louis, Mo.
J. C. Moore, M. D., Tekamah, Neb.
R. L. Moore, M. D., Spring Valley, Minn.
J. C. Mulhall, M. D., St. Louis, Mo.
C. E. Nelson, M. D., New York, N. Y.
Samual Nelson, M. D., Vienna, Austria.
A. H. Ohmann-Dumesnil, A. M., M. D., St. Louis, Mo.
David Prince, M. D., Jacksonville, Ill.
J. Pogue, M. D., Edwardville, Ill.
S. Pollak, M. D., St. Louis, Mo.
Thos. F. Rumbold, M. D., St. Louis, Mo.
A. Sawyer, M. D., Arbela, Mo.
Chas. A. S. Sims, M. D., St. Joseph, Mo.
J. A. Stucky, M. D., Lexington, Ky.
J. S. Tatum, M. D., Harreldsville, Ky.
J. R. Van Allen, M. D., Kansas City, Mo.
W. W. Watkins, M. D., West Plains, Mo.
J. D. Whitley, M. D., Petersburg, Ill.
Reynold W. Wilcox, A. M., M. D., New York, N. Y.
Joseph Workman, M. D., Toronto, Canada.

LIST OF ILLUSTRATIONS.

FIGURE		PAGE
1.	Device for purifying the air in operating rooms.	110
2.	Case of Rodent ulcer.	149
3.	Cautery apparatus.	473
4.	" "	473
5.	Levis' Metallic Splints.	530
6.	" " "	530

INDEX

TO

VOLUME XLVIII.

A

Abscess, ossifluent, of the orbit of a nursling cured by administering the medicament to the nurse. 49.
Abnormal sacrum. 407.
Abscence of vagina, uterus and ovaries. 397.
Acne. Heredity of, 400.
Address of the chairman of the section in practical medicine. 433.
Address of the chairman of the section in obstetrics. 436.
Address of the chairman of the section in ophthalmology, otology, etc. 441.
Address of the chairman of the section on children's diseases. 441.
Albuminuria. Eruption accompanying, 148.
Albuminuria in skin diseases. 499.
Amnesic aphasia. 532.
Am. Surgical Assoc. David Prince. 463.
Am. Med. Assoc. 432.
Ammonia muriate in bronchial catarrh. 332.
Amblyopia nicotiana. 317.
Amblyopia saturnina. Pathology of, 220.
Amyloid degeneration of placenta. 71.
Ankylostoma Duodenalis. 487.
Antimonial wine and turpentine in skin diseases. 328.
Aneurism, traumatic, of the carotid. 414.
Annual address of the president. 432.
Aphasia, Apoplexy, Malingering or what? 509.
Aphasia, transitory, from toxic origin. 48.
Aphasia of the new born. Hot water in, 219.
Arthritis. purulent, Micrococcus of, 156.
Asphyxia, local, of the extremeties in an atheromatous woman. 45.
Asthma. 145.
Aspirator in hydrothorax. 145.
Asiatic Cholera, its etiology and treatment. A. Green. 283.
Asiatic cholera. 342.
Ataxia. Neuralgia of clitoris a commencement of locomotor, 52.

B.

Bacillus of syphilis. 64. 65, 387.
Bacillus tuberculosis. 54
Bacilli. Specimens of. 255.
Bacillus of cholera. 217, 227.
Barck C. Two cases of paralysis of the eye muscles. 380.
Bed bug in the ear. 221.
Benkendorf E. Unusual weight of a new-born child, 383.

Benkendorf E. Movements of the fœtus in utero. 128.
Bichloride of mercury as an antiseptic and germicide. 176.
Bichloride of mercury in phthisis. 331.
Bichloride of mercury in carbuncle. 179.
Birth-rate of illegitimates in prague. 449.
Bifid spine. 503.
Brain symptoms from ear trouble. 350.
Bremer L. Latest cholera investigations. 33.
Bremer L. Evils of exclusive specialism. 34.
Bremer L. Reliable sign of pregnancy. 35.
Bremer L. Hypnotism a cure in chorea. 36.
Broncho pneumonia. Pathology of, 55.
Bromides to prevent iodism. 502
Books and pamphlets received. 94, 268, 528.
Book Reviews:
Ashhurst.—Surgery. 93.
Austin.—Neuralgia. 525.
Bernard.—Aphasia. 523.
Bigelow.—Guide to Berlin. 527.
Biennial report of state penitentiary for Western district of Penna. 448.
Blaudell.—Our bodies. 191.
Brown.—Invalids tea-tray. 448.
Bodenhamer.—Hemorrhoids. 359.
Carter.—Practical medicine. 192.
Castorani.—Extraction of cataract. 258.
Castorani.—Inflammatory ectropian. 259.
Cathell.—The physician himself. 447.
Delafield.—Pathology. 360.
Edwards.—Therapeutics of Diseases of Children. 526.
Emmet.—Gynæcolygy. 189.
Favus.—Skin diseases. 88.
Fox.—Skin diseases. 87.
Garret.—Myths in medicine. 90.
Gill.—Diphtheria. 359.
Goodhart.—Diseases of children. 445.
Graham.—Massage. 192.
Holden.—Anatomy. 447.
Kitchen.—The diaphragm. 446.
Kitchen.—Consumption. 261.
Klein.—Micro-organisms and dis-
Knaop.—Cocaine. 447.
ease. 260.
Leffferts.—Nasal catarrh. 191.
Leonard.—Bandaging. 93.
Loomis.—Practical medicine. 189.
Maisch.—Materia medica. 446.
Med. & Surg. Directory of Mo. 448.
Mitchell.—Nervous system. 447.
Naphey.—Therapeutics. 91.
Partringe.—Manual of obstetrics. 260.
Pepper.—Medicine. 527.
Pepper.—Practical medicine. 92.
Poore.—Osteotomy and osteoclasis. 89.
Report Board of Health of Ill. 94.
Reese.—Jurisprudence and Toxicology. 190.
Remsen.—Organic chemistry. 440.
Roberts.—Surgical delusions. 260.
Roosa.—Diseases of the ear. 92.
Rumbold.—Hay fever. 358.
Seguin's.—Metric prescription book. 448.
Shœmaker.—Oleates. 523.
Sims.—Story of my life. 261.
Smith.—Diseases of children. 190.
Swanzy.—Diseases the of eye.
Trans. Acad. of Med. in Ireland. 261.
Trans. N. Y. State Med. Assoc. 446.
Ultzmann.—Pyuria. 259.
Watson.—Amputations. 445.
Warning.—How to drain a house. 526.
Wells.—*The Analectic.* 261.
Wilson.—Clinical Chart. 526.
Wormley.—Micro-chemistry of poisons. 359.
Year book of treatment. 261.
Zeigler.—Diphtheria. 192.
192.
Ziemssen.—Skin Diseases. 524.

C.

Catarrh, chronic, of the naso-pharynx. 138.
Carbuncle. Treatment of, without incision, 442.
Cartilaginous abdominal tumor. 416.
Carmine injecting fluid. 493.
Carbuncle. Bichloride of mercury in, 179.
Cæsarian operation among the aborigines of central Africa. 268.
Caesarian section performed by the patient herself. 449.

Case of double Colle's fracture. 199.
Cervical pregnancy. 271.
Chancroidal bubo. Virulence of the, 62.
Cholera in Egypt. A few remarks on the epidemic of, I. A. S. Grant (Bey) 9.
Cholera investigations. The latest, L. Bremer. 33.
Cholera, Treatment of, by enteroclysmata and hypoderma-clysmata. 47.
Cholera. Enteroclysmata of tannic acid in, 137.
Cholera in St. Louis. 163.
Cholecystotomy. 395.
Cholera and its treatment. 443.
Chrancres. Extra genital, 401.
Chorea. Hypnotism a cure in, L. Bremer. 36.
Chronic catarrh with deafness cured by the warm spray method. Chas. A. S. Sims. 208.
Christensen. T. Universal psoriasis. 81.
Christopher. Hiram, Genesis of organic substances. 113, 200.
Christopher. H. Place in creation and the work of micro organisms. 273, 361.
Christopher. H. Germ Action. 451.
Circumcision. 482.
Clitoris, Neuralgia of the, commencement of locomotor ataxia. 52.
Cocaine in venereal surgery. 63.
Cocaine in the eye. 135.
Cocaine in the larynx. 141.
Cocaine in dermatology. 147.
Cocaine for vaginismus. 151.
Cocaine. 185, 349, 356.
Cocaine in dipsomania. 426.
Cocaine for vomiting of pregnancy. 431.
Cocaine. J. Workman. 475.
Code of ethics. 438.
Colds. N. R. Gordon. 28.
Colo-proctitis. 444.
Cold extremeties due to a vasomotor neurosis. 246.
Comma bacillus. S. Nelson. 302.
Comma bacillus and cholera. 65.
Committee of the Am. Med. Ass. and the International Med. Congr. ss. 385.
Contagious skin diseases. 490.
Concentrated remedies. 83.
Congenital abscence of one lung. 144.
Corns. Topical application against, 134.
Corrosive sublimate in granular ophthalmia. 50.
Craig. W. B. Pelletierine for taenia. 128.
Cremation of the dead. 46.
Croton oil as a prophylactic against marriage. 330.
Croup. Tracheotomy in, 141.
Curdled milk lodged in the pylorus. 242.
Cystitis, Formula for, in old men with prostatic enlargement. R. L. Moore. 38.

D.

Dangers of alimentation with the meat and milk of tuberculous animals. 312.
Decrease of the population of France. 310.
Deflected nasal septum. 334.
Department of diseases of the respiratory organs. J. C. Mulhall. 55, 138, 230, 381, 495.
Department of microscopy. F. L. James. 65, 154, 227, 319, 403, 492.
Department of dermatology and syphilis. A. H. Ohmann-Dumesnil. 60, 147, 222, 324, 398. 498.
Dermatitis herpetiformis. 62.
Dermatitis, exfoliative, in a syphilitic. 63
Dermatitis herpetiformis with peculiar gelatinous lesions. 324.
Deviated septum and nasal catarrh. 331.
Diapedesis. Discoverer of. 154.
Diabetes mellitus. Physiological basis for the theory of, 137.
Diphtheria. Chloral treatment of, 56.
Diphtheria. 60, 230, 353, 407.
Diphtheria. Tripsin in. 332.
Diphtheria and labor. 351.
Digitalis in valvular diseases of the heart. 334.
District medical society of central Ill. 85.
Dosage in medicine. 82.
Drunkeness and dipsomania. 218, 427.
Dyspnœa. 230.

E.

Eczematous dermatitis, traumatic, of ears of infants. 61.
Eczema of the hands. 134.
Eczema. Treatment of, 498.

Eczema. Iodide of potassium in, 398.
Editorials. 39, 131, 305, 385, 480.
Effects of excesses on the mind of professional and business men. Thos. F. Rumbold. 193.
Electricity in diseases of the nose, throat and ears, etc. J. R. Van Allen. 24.
Electricity in cardiac and respiratory failure. 231.
Elephantiasis. 223.
Emetics. Use of, 243.
Embolus in the subclavian. 249.
Empyema, migration of, into the lumbar region. 233.
Epistaxis in childhood. 140.
Epistaxis. Spontaneous. 316.
Episiotomy. 532.
Epithelioma. 430.
Ergot. 269.
Erysipelas. Treatment of. 396.
Erysipelas. Microbe of. 492.
Erythema, hæmorrhagic, during gonorrhœa. 329.
Erythema multiforme. 224.
Erythema circinatum. Infectious. 60.
Etiological relations of nervous lesions to cutaneous diseases. 147.
Extirpation of the thyroid. 232.
Explosive medicaments. 318.

F.

False doctrines in the treatment of fractures. 443.
Femur. fracture of the, J. Pogue. 119.
Fibro-myoma. vaginal. removal of a. J. C. Moore. 125.
Floating Minute Organic Matter in the air and its manage ment to prevent disease and to mitigate or control it. with a new divice for atmospheric purification. (Illustrated), David Prince. 97.
Foreign body in air passages with negative symptoms. 53.
Free drainage and wiring of the bones in compound fractures. 444.

G.

Galvano caustic applications and cocaine. 79.
Gastrostomy. 394.
Gelatine preparations in skin diseases. 380.
Genesis of Organic substances. Hiram Christopher. 113, 200.
Germ Action. H. Christopher. 451.
Giant growth of lower extremeties. 444.
Glaucheoma. A new method of treating chronic, 315.
Gloso-labial paralysis. 57.
Glosso-laryngeal epitheliomatous ulcer. 81.
Goitre. Exophthalmic, Extirpation of, etc. 58.
Gonorrhœal arthritis in the female. 225.
Gordon. N. R. Colds. 28.
Grant Bey. I. A. S. Remarks on the epidemic of cholera in Egypt. 9.
Green. A. Asiatic cholera, its etiology and treatment. 283.
Gumma of the breast. 224.
Gynæcology. Historical. 504.

H.

Heart weighing 48 ounces. 495.
Heart. Organic lesions of the, and iodoform. 49.
Heart. Malformation of the, 269.
Hemoptysis. 495.
Herpes of the cornea. Iodoform in, 51.
Hernia. Reduction of strangulated congenital inguinal. without opening the sac. 154.
Higher medical education. 391.
Hip diseases. Therapeutic and operative treatment of, R. W. Wilcox. 450.
Hodgkin's disease. 150.
Homans. J. Spray in ovariotomy. 127.
Hydrangia arborescence. 449.
Hydrorrhœa. semiotic value of, in cancer of the uterus. 51.
Hydrothorax. Aspirator in, 145.
Hypospadias. 503.
Hyperidrosis. Unilateral. 150.
Hypodermatic medication. 312.
Hypodermatic injection of oil. 443.

I.

Impotency. 396.
Imperforate Anus and urethra. 503,
In Memoriam:
John Snyder Moore, M. D. 253.
Peter V. Schenck, M. D. 255.
William Braithwaite, M. D. 256
Injury from explosion of shell. 389.

Intercostal nerves. Stretching the, 218.
International medical congress. 437.
Intestinal occlusion treated by electricity. 313.
Iodoform exanthema. 315.
Iodoform and organic lesions of the heart. 49.
Iodoform in herpes of the cornea. 51.
Iodoform, action of, in diabetes. 134.
Iritis cured by an attack of cholera morbus. 246.
Iritis relieved by cholera morbus.
Is the extirpation of the thyroid gland physiologically permissible? 314. 342.

J.

Jaborandi in urticaria. 148.
James. F. L. Department of microscopy. 65, 154, 227, 319, 403, 492.
Japanese history of spphilis. 226.
Jequirity. 431.
Journal de micrographie. 323.

K.

Kairine. Chlorhydrate of. 220.
Keratitis. Syphilitic interstitial, 64.
Keloid. Treatment of, 491.

L.

Larynx. Sarcoma of the, 495.
Larynx. Papillomatous growth in the, 72.
Laryngeal tuberculosis. 77.
Larynx and stomach in children. 140.
Larynx in tabes dorsalis due to syphilis. 140.
Laryngeal stenosis and the lungs. 142.
Larynx in the diagnosis of pulmonary phthisis. 143.
Laryngeal lupus. 223.
Larynx. Intubation of the, 231.
Laryngeal paralysis in consequence of lead poisoning. 334.
Laryngo-typhus. 335.
Laryngeal nerves. Anastomoses of the, 338.
Levis' metallic splints. 530.
Leucorrhœal discharges from roller skating. 532.
Liver. Injection of the vascular system of the, 492.
Locomotor ataxia. A new symptom and a new theory of, 217.
Lupus vulgaris. The burr and hook in, 326.
Lupus erythematosus. Cure of a
Lupus vulgaris and scarification. 500.
case of, 899.
Lupus. Treatment of, 62.
Lyphiloma. 329.

M.

Magnifying power of eye pieces and objectives. 403.
McIntyre. Jno. H. Case of double Colles' fracture. 199.
Mechanical treatment of the chronic disturbance of the sound conveying apparatus. 317.
Mercury as a tonic. 181.
Micrococcus, characteristic, of purulent arthritis. 156.
Micro-organisms. Staining, 289.
Microphytes of the normal human skin. 319.
Microbes of erysipelas in the kidneys. 404.
Migrane. A specific against, 49.
Mitral valves. New hydrostatic test of. 54.
Moore. J. C. Removal of a vaginal fibro-myoma. 125.
Moore, R. L. Formula for cystites in old men with prostatic enlargement. 38.
Mulhall. J. C. Department of diseases of the respiratory organs. 53, 138, 230, 331, 495.

N.

Nasal septum. Serous Perichondritis of the, 497.
Nasal erectile tissue. 139.
Nasal catarrh. Patent remedies for.
Naphthalin in affections of the alimentary organs. 484.
Thos. F. Rumbold. 17.
Nelson. C. E. Origin of the nervous system. 279, 366.
Nelson. S. Comma-bacillus. 302.
Nephrozymase, semeiologic value of, in renal affections. 489.
Neuralgia of clitoris a commencement of locomotor ataxia. 52.
News items. 96, 266, 449, 530.
New Years cards. 39.
New instrument. 253.

Night cough, observation on, especially in children. 231.

O.

Œdema of thoracic parietes, and pleural effusion. 284.
Œsophagus. Stricture of the. 146.
Ohmann-Dumesnil. A. H. Importance of local mercurial treatment in syphilis. 456.
Ohmann-Dumesnil. A. H. Department of dermatology and syphilis. 60, 147, 222, 324 398, 498.
Ohmann-Dumesnil. A. H. Relations of skin diseases to marriage. 372.
Ophthalmia. granular. Corrosive sublimate in, 50.
Opium. Tolerance of, 390.
Origin of the nervous system. C. E. Nelson. 279, 366.
Os ilium. Deformed. 503.
Osteo-periostitis, parasitical, of the alreolar process. 50.
Osmic acid in histology. 320.
Otorrhœa. Treatment of, 317.
Ovariotomy. Spray in, J. Homans, 127.
Ovariotomies, two, on the same person. 444.
Oxygen and ozone. Therapeutic signification of, 44.

P.

Paraphimosis. Operation for, 315.
Paralysis from hemorrhage in the spinal cannal—death due to decupitus. 235.
Papillomatous growth in the larynx. 72.
Pathological specimen. 157.
Periproctitis, case of, with typhoid symptoms. 516.
Periodical change of the color of the hair. 328.
Peripheric irritation. 396.
Phthisis. Bichloride of mercury in, 331.
Phthisis. Contagiousness of, 443.
Physical examination of weak chests. 496.
Pityriasis rubra. 224.
Place in creation and the work of micro-organisms. H. Christopher. 273, 361.
Pleuritic deformities. Test for. 488.
Pleural effusion in children. 145.
Pneumonia. Cold baths in. 146.
Pneumonia, septic, of the new born. 146.
Pogue. J. Fracture of the femur. 119.
Pollak, S. Excerpts from French Journal. 47. 133, 220. 310.
Pollak, S. Excerpts from German Journal. 44. 135, 217, 314.
Practitioner and preacher, a clerical blunder. 308
Prince. D. Am. Surgical Assoc. 463.
Prince. David, Floating minute organic matter in the air and its management. with a new device for atmospheric purification. [Illustrated] 97.
Pregnancy. Vomiting in, 50.
Pregnancy. Reliable sign of, L. Bremer. 35.
Pregnancy. Changes of the blood in, 45.
Pruritic rhinitis. Differential diagnosis of the various stages of, Thos. F. Rumbold. 384.
Pruritic Catarrh or hay-fever—its treatment. J. A. Stucky. 466.
Psoriasis. Universal, T. Christensen. 31.
Psoriasis. Treatment of, 150. 222.
Puerperal fever. Cold baths in, 51.
Pulmonary phthisis. Modern methods of treating, 55.
Pulmonary syphilis. 153.
Purulent otitis media. 346.
Pyloric stenosis. Statistical review of the operative measures devised for the relief of, 392.

Q.

Quinine. Lactate of. 268.
Question in Medical jurisprudence. W. W. Watkins. 295.

R.

Rectum. Cancer of the, 75.
Relations of skin diseases to marriage. A. H. Ohmann-Dumesnil. 372.
Religious superstition *vs* humanity. 388.
Relation of color in wearing material to water. 318.
Rhinoliths. 56.
Rhinoscleroma. 499.
Rhinoscleroma. Cause of, 404.
Rheumatic neuritis. 414.

Ringworm, epidemic, of the scalp. 326.
Ringworm. Corrosive sublimate in, 327.
Ringworm of the scalp. Treatment of, 400.
Rodent ulcer. A case of, (illustrated) 194.
Rumbold. Thos. F. Effects of excesses on the mind of professional and business men. 193.
Rumbold. Thos. F. Differential diagnosis of the various stages of pruritic rhinitis. 384.
Rumbold. Thos. F. Patent remedies for nasal catarrh. 17.

S.

Sarcoma of the larynx. 495.
Sarcoma of viscera. 250.
Sawyer. A. Vinegar in diarrhœa and dysentery. 36.
Scabies. 223.
Scarlatina. 393.
Scarlatina. Malignant, 417.
Scarcity of English Medical degrees. 480.
Sciatica, treatment of, by refrigeration. 48.
Scorpion. Sting of a, 271.
Sedative expectorant. 234.
Self mutilation in a lioness. 270.
Sims. Chas. A. S. Chronic catarrh with deafness cured by the warm spray method. 208.
Skin affections due to temperature variations in cold weather. 399.
Small pox. Prophylactic of, 394.
Smoking and cancer. 233.
Snow blindness. 336.
Some correlations between cadaveric rigidity and the temperature of the body. By Prof. Arnigo Tanassia. Translated by Joseph Workman. 211, 297.
Specialism. Evils of exclusive, L. Bremer. 34.
Spindle celled sarcoma of the lachrymal gland. 411.
Spleen. Consequences of extirpation of the, 217.
St. Louis Medical Society Proceedings. 71, 157, 235, 336, 407. 503.
Staining micro-organisms. 239.
State Inebriate Asylum. 40.
State Board of Health vs advertising quacks. 41.
State Medical Association. 131.
Struma fibroma ossea. 159.
Stucky. J. A. Pruritic catarrh or hay-fever—its treatment. 466.
Submucous laryngeal hemorrhage. 334.
Subglottic region. Bone in the, 56.
Sugar in the blood, its source and significance. 44.
Surgical treatment of cysts of the pancreas. 444.
Syphilis, acquired without a primary sore. 152.
Syphilis, pulmonary. 153.
Syphilitic disease of the lung. 225.
Syphilis. Japanese history of, 226.
Syphilis a cause of sterility. 226.
Syphilis. Abortion of. 329.
Syphilide. The pigmentary, 330.
Syphilis. secondary, Treatment of, 400.
Syphilology. Mooted points in, 401.
Syphilitic gummata of the larynx. 402.
Syphilis. Importance of local mercurial treatment in, A. H. Ohmann-Dumesnil. 456.
Syphilitic virus. Resistance of the 501.
Syphilide. Pigmentary. 501.
Syphilis. Mercury in, 501.
Sweating to death. 327.

T.

Tabes dorsalis. Spasmodic, 267.
Tænia. Pelletierine for, W. B. Craig. 128.
Tatum. J. S. Typhoid flux. 210.
Tetanus, traumatic, after subcutaneous injection of quinine. 133.
Tetanus. 490
Thermo-cautery in spontaneous gangrene. 312.
Thread-worms. Treatment of. 272.
Tinea versicolor of the face. 327.
To the medical profession in the state of Mo. 131.
Tobacco. does it produce amblyopia? 267.
Tonsils and tuberculosis. 495.
Tracheotomy in diptheritic croup. 332.
Translations from the French Journals. S. Pollak. 47, 138, 220, 310.
Translations from the German Journals. S. Pollak. 44, 135, 217. 314.
Translation from the Portuguese. 475.

Tricuspid valves. New hydrostatic test of, 54.
Trichinosis, report of four cases of, three of which recovered. J. D. Whitley. 376.
Tripsin in diphtheria. 332.
Tubercle of the œsophagus. 497.
Tubercle bacillus. Vitality of the. 465.
Tuberculosis. An attempt at radical treatment of. 442.
Tumors, erectile. Treatment of, by electrolysis. 48.
Typhoid fever. Cold baths in. 51.
Typhoid flux. J. S. Tatum. 210.

U.

Unusual weight of a new born child. E. Benkendorf. 383.
Urticaria a frigore. 61.
Urticaria. Jaborandi in, 148.
Uterus. Semiotic value of hydrorrhœa in cancer of the. 51.

V.

Vaccination after exposure to small-pox. 500.
Vaccinia and variola at the same time and in the same individual. 325.
Vaginal calculus. 397.
Vaginal douche. 397.
Vagus. Prognosis of resection of the, 143.
Van Allen. J. R. Electricity in diseases of the nose, throat and ears etc. 24.
Vaso-motor paralysis. 249.
Vegetable alkaloids. 83.
Vesical calculus. Formation of. 515.
Vinegar in diarrhœa and dysentery. A. Sawyer. 36.
Voice. The. 397.
Vomiting in pregnancy. 50.

W.

Watkins. W. W. A question in medical jurisprudence. 295.
Whitley. J. D. Four cases of trichinosis three of which recovered. 376.
Wilcox. R. W. Therapeutic and operative treatment of hip diseases. 460.
Workman. J. Cocaine. 475.
Workman. Joseph. Some correlations between cadaveric rigidity and temperature of the body. By Prof. Arnigo Tamassia. 211, 297.

X.

Xanthoma. 150.

Y.

Yellow-fever microbe. 69.

BOSTON MEDICAL LIBRARY ASSOCIATION.
THE SAINT LOUIS

MEDICAL AND SURGICAL Journal.

VOLUME XLVII——January, 1885——No. 1.

Original Contributions.

ARTICLE I.

A FEW REMARKS ON THE EPIDEMIC OF CHOLERA IN EGYPT DURING THE SUMMER OF 1883* By I. A. S. GRANT, (Bey) M. D.

When I came to this Congress it was with the sole intention of listening and of learning, but as the distinguished President of this Section has asked me to give some particulars of my experience with Cholera in Egypt I most willingly acquiesce, not however to wrangle about the origin of the disease but to discuss the best measures for its ultimate extinction.

I feel in addressing you that it is a piece of supererogation to state that we know a great deal about Cholera, without taking into consideration the admirable discoveries of Dr. Koch that demand further study and research.

* Read before the International Medical Congress, Copenhagen, 1884.

We know that Cholera is very fatal; that it is endemic in India that every few years it takes a wandering fit and avails itself of every opportunity of leaving its native soil to search for "pastures new."

It travels over land and over sea wherever there is human communication. Here, however, I would remark that a long sea voyage or a desert journey is not congenial to it, so that up till now Australia has not been visited by it and it has been ascertained that a three days journey on the desert stamps it out of the caravan afflicted with it.

It is transferred from place to place slowly or quickly according to the methods of travel adopted by human beings, whether it be by sailing-ship or by steamer, whether by foot or by railway.

Every medical man who has passed through a Cholera epidemic can give his own experience in grappling with this formidable malady and that, combined or compared with the observations of others, will ultimately lead to an accurate knowledge of the disease so as to guide us not only in curing the patient but in stamping it out in its habitat, and here let me say that I thoroughly endorse the opinion of Dr. Cameron of Glasgow as stated at the late Bristol Medical Association at Belfast *viz*: If we could stamp out the cholera in India the rest of the world would have nothing to fear. In other words, India is the country where cholera is endemic and is therefore always a source of danger to every country having communication with it. Now, to stamp out cholera in India will be a herculean labor and will take many years of vigorous sanitation and probably during that time we shall have now and again to combat the unwelcome visitor both by sea and land. Now gentleman, while I am a contagionist (a microbist if you choose) and therefore an importationist as far as cholera is concerned, I am at the same time convinced that the commerce that imports the malady cannot be suspended nor will it allow of being even moderately impeded, for thereby dishonesty is encouraged, the truth is concealed and the malady is introduced clandestinely.

There is much more risk to a country in having a too prolonged quarantine for infected vessels coming from an infected port than if it were to have a very short quarantine combined with a very short disinfection. As regards the cargo it could be partially disinfected while still in the vessel by the fumes of sulphur or by any other disinfectant that could be made to permeate all through the hold.

It could then be removed to a special magazine and there sealed up for 24 hours but so arranged as to allow of the free dissemination of the disinfectant used.

In the case of rags more care should be taken than with any other kind of merchandise. They would have to be spread out

---

It is as frequently conveyed against the wind as with it and against the stream as with the current. It flourishes in heat and in cold but it is more severe in low lying districts than on the elevated lands and in the low unsanitary slums of large towns than in the higher and more cleanly quarters.

It has been proved that contaminated drinking water has been and is still one of the principle media for propagating this disease, which numbers amongst its victims all classes and conditions of men.

in the disinfecting magazine and turned over several times in the 24 hours; but as necessity is the mother of invention, no doubt something would be made for the rags to be spread on that would allow of the fumes of the disinfectant to penetrate from below upwards. In the mean time the vessel itself would be undergoing a thorough cleansing and disinfecting process before another cargo is taken on board, such officers, sailors and passengers as are not affected by the malady, (for I am now speaking of an infected vessel) should be allowed to land after a medical inspection. In this I concede there is a risk but I consider the risk is less than in the other alternative of retaining by force the healthy and the sick for several days on a pest ship. Besides I do not believe it can be done unless the infected vessel be immediately sent off to some distant island there to go through a purgatory of quarantine, such that even the most conscientious captains would feel themselves justified in falsifying their log in order to avoid.

Escapes from Lazzarettos are too common to allow of their being looked upon as effective institutions, at any rate as residences for days. Then as to those affected by cholera on board, they should be removed under special precautions and taken to a cholera hospital. All their dirty bed linen should be burned and they themselves washed with a solution of carbolic acid not weaker than 5 *per cent.* and not stronger than 10 *per cent.* An antiseptic pillow of cotton or other material should be placed under the body for absorption of the dejections and the whole body wrapped in a disinfected sheet. Other coverings might then be put around the body and the patient removed from ship to a disinfected vehicle to be conveyed to the cholera hospital. * . This is the proceedure I should propose for an infected vessel arriving in a non-infected port.

On the other hand if a vessel arrives from an infected port with a clean bill of health, having had no suspicious cases even during the voyage and the cargo not rags, I should allow of free *pratique* after a simple medical inspection, but if there be a cargo of rags I should insist, as far as that cargo is concerned, to have

* In case there should be a choleraic cadaver I would do what I recommended during the late epidemic in Egypt *viz*: to wash the dead body in a solution of carbolic acid, wrap it in a sheet saturated with the same or a stronger solution and have it buried as soon as possible.

them disinfected as well as the ship itself just as if it were an infected vessel.

Then again if a vessel from an infected port arrives at a non-infected port with a clear bill of health but showing that during the voyage there had been some suspicious cases on board that had either died or recovered, this would call for the special attention of the visiting sanitary officer, so as to make sure that the dirty linen of the patients had been destroyed and disinfectants used and also to make a special point of finding out whether any one on board was suffering from diarrhœa. Cases of diarrhœa under these circumstances should, with disinfecting precautions, be sent to a special hospital or special ward in a hospital to be cured as if they were cases of cholera. While dealing with ships there is one other precaution to be mentioned. *viz*: that the captain or whatever officer emyloys sailors from an infected port should have them pass a medical inspection before coming on board.

As communication between an infected country or town and a non-infected country or town cannot be cut off, I would institute sanitary measures as effective as soon as possible without causing panic and not so troublesome as to make people try to evade them. I have passed through two severe epidemics of cholera in Egypt which have clearly demonstrated the merits and demerits of the cordons sanitaires.

In the epidemic of 1865 no sanitary measures of this nature were adopted, but, notwithstanding this freedom from the cordons sanitaires the panic amongst the foreign element in the country was even greater than the panic of last summer's epidemic when the cordons sanitaires were tried. I merely state this to show that the simple presence of cholera in a community is sufficient of itself to cause a panic, as we have seen this summer at the French infected towns and we must be prepared to minimise the risk incurred by a panic stricken people from an infected district scattering themselves over the country.

The only good that could be attributed to the application of the cordons sanitaires in Egypt was, that it decidedly retarded the progress of the malady and thus gave more time for the non-infected towns to prepare for the enemy that, notwithstanding the cordons, was sure to come upon them. But I fear the ultimate result was far from favorable; for if the government had allowed

the report of the late sanitary board to be finished and published we should have found the mortality of the two epidemics about the same.

It is not, therefore, in my opinion justifible to apply the cordons sanitaires, if all the good they do is simply to check the progress of the disease for a few days without lessening the ultimate mortality. I do not hesitate for a moment to state my belief that if a perfect cordon sanitaire were placed around an infected district the cholera would not spread from there but would die out in due time unless it were endemic in the place.

It is the imperfection of the cordon that is its weak point and it has been quite impossible as yet to make it perfect. The dictates of science, however, are, as a rule, sound, but they may be impracticable while some modification of them might be carried into effect with success. I do not believe that a civilized people would submit to be confined to an infected city by a cordon sanitaire. They would rise in rebellion and break through the cordon at the risk of being shot.

We come back again, therefore, to more simple and less annoying measures of sanitation. If people choose to leave an infected place to go to a non-infected place I do not see why it should not be an easy matter for them to inform the sanitary authorities of their intention and let them and their baggage be disinfected before leaving. All this requires considerable organizing and studying out and what I have said about it is simply to broach the subject that hygienic minds may think the matter over more seriously and come to some universal, practical results.

With respect to prophylactic measures to be recommended I shall only mention that 5 to 10 drops of dilute hydrochloric acid 3 times a day were taken by the members of several large households in Cairo before and after the cholera broke out in that town and only one of their nnmber was seized by the cholera and he died, but he was a Greek servant who did not take the acid.

I think it is a great matter at such times when a contagious disease is at the door that all food should be well cooked and the drinking water boiled.

In the medicinal treatment of the disease I consider that I have had great success and I shall here recount to you in a few words my experience.

During the cholera of 1865 in Egypt, the most remarkable

cases of recovery that came under my notice had been treated with small doses of calomel frequently repeated according to urgency of symptoms, and it may here be remarked that notwithstanding the large quantity of calomel taken in a short time I never saw any of these cases manifesting the least sign of salivation.

I was then so satisfied with the good effects of the drug that I determined to prosecute this treatment more extensively should I ever have the misfortune to be brought face to face with the malady again. But although I have had an extensive native as well as European practice out there for nearly 20 years, I have not seen the same disease till the epidemic of last summer when I had no difficulty at Damietta in recognising it as true cholera. But by this time my ideas about the calomel treatment of cholera had become modified and in this way. About five years ago I was led to try the bichloride of mercury in the mucous diarrhœa of teething children that were being reared on the bottle, and I was so successful that I ventured to extend its use to chronic and refractory diarrhœas of adults with considerably more success than my former treatment with calomel or grey powder had produced. This led me to think that perhaps after all, the good results formerly obtained in such cases by administering calomel arose from a portion at least of the calomel being turned into the bichloride in the stomach, by the action of the free hydrochloric acid in the gastric juice, and that probably the action of the drug was entirely a local one, destroying the micrococci that were irritating the intestines and keeping up the diarrhœa.

With these ideas running in my mind when the cholera broke out suddenly at Damietta that summer, I determined to extend the bichloride treatment into the cholera field but in what may be styled a heroic manner, knowing full well the kind of disease I had to deal with, and being convinced from former experience that in true cholera there is little or no absorption of medicines given by the mouth.

During the epidemic then I adopted the following plan. If the patient suffered from the symptoms of a simple diarrhœa I gave opium in large divided doses and in many such cases this sufficed, but if vomiting or cramps set in I immediately suspended the opium treatment and gave the bichloride of mercury in doses of $\frac{1}{16}$th up to $\frac{1}{8}$th of a grain every quarter of an hour, every half hour or every hour according to the state of the patient.

Of course when I was called to see a patient in the collapse of the disease I gave the bichloride at once and I had many recoveries to record. I do not mention here the adjuncts that I used, such as rubbing the patient with mustard and trying in all the usual ways to keep up the animal heat, because I want to lay special stress on the medicinal treatment, and in the bichloride of mercury I consider that we have a powerful anticholeraic.

Out of sixty-eight Railway employes (seen and attended to by myself) who were suffering from all the usual symptoms of cholera and who were treated by corrosive sublimate, only fifteen of them died, being a death rate of little more than twenty-two *per cent.*

In India, on the other hand, we find from the published statistics that in the military and civil services they have a death rate from cholera of 72 and 66 *per cent.* of the cases treated.

Gentlemen, there is no time for going further into this matter here, but I shall leave with the secretary my report on the late epidemic of cholera in Egypt as it appeared in the British Medical Journal of Feby. 9th, of this year and I shall also have the pleasure of forwarding to him a copy of the sanitary regulations that I drew up for the Egyptian Railway department and that were distributed (along with the drugs recommended) amongst the station masters on the various lines of railway and these were, as a rule, intelligent enough to understand the instructions and carry them into effect and with most satisfactory results.

But before closing my paper I wish to relate to you a most interesting if not instructive case of what may be called a partial quarantine that had a most happy issue. The facts I am now about to lay before you are attested by the signature of one of our most esteemed physicians in Cairo, Dr. Vernone.

On the outskirts of Cairo there is a port-town on the Nile called Boulay. It is densely inhabited by the working classes and every here and there throughout the town there are conglomerations of low filthy Arab huts, fit only for wild beasts to live in.

Immediately to the South of one of these Arab hamlets and on low ground there is a large French flour mill surrounded by a wall 12 feet high with only one large gate of entrance opening to the West. Inside this wall besides the mill there is a large open area and the mill with its enclosure forms the base of a triangle the apex of which points due west. The north-west side is a high ground covered with Arab huts that look down into the

mill area. The south-west side is occupied by the Khedives stables and the road from and to the mill leads due south into the public road for Cairo.

The reason I am so particular in mentioning the exact position of this mill as to its surroundings will be obvious as I proceed. Here there were constantly employed 12 Europeans an 85 Arabs. The Europeans had their houses in Cairo but the Arabs had their families in Boulay and dwelt principally in the huts near by.

Now, before the cholera broke out at Boulay the manager of this mill informed the Arab employes that if they remained and did their daily work at the mill inside the enclosure wall and had no communication with their families till the epidemic had passed, they would not only receive their pay but also be fed at the expense of their master. 82 out of the 85 Arab employes submitted to this restriction and the other three that would not be separated from their families had, for the time being, to be dismissed.

The European employes, however, were put under no restriction so that they had free access to the mill and to their families in Cairo. The mill is supplied with filtered water from the pipes that supply Cairo, while the Arabs living in Boulay have their supply directly from the Nile and drink it unfiltered.

It is well known how badly the cholera raged in Boulay and especially amongst the huts near the mill. These had all to be burned to the ground and many of the families, before the government could remove them to the place appointed for them, nestled down at the foot of the mill enclosure wall and a great number of them died there, and besides the north wind was steadily blowing from the infected quarter right on to the mill, yet during the three weeks of the partial quarantine there was not a single suspected case at the mill and on making inquiries after the epidemic had ceased concerning the three Arabs that had to be dismissed, it was found that all the three had been attacked by the cholera and two of them had died of it.

Now I judge from this that if the other 82 Arabs had had free communication with the infected quarter without undergoing any disinfecting process they would not only have had a large proportion of deaths amongst themselves, but would have carried the contagion to others. It is from facts such as these, that we may be guided to what may be called tolerable measures of sanitation.

N. B. I forgot to mention that out of the 16 summers that I have passed in Egypt the summer of 1883 has been the best as far as mildness of the weather is concerned.

Article II.

Patent Remedies for Nasal Catarrh*. By Thos. F. Rumbold, M. D., of St. Louis, Mo.

There are many persons whose nasal, head, throat and chest troubles would be slight had they refrained from using the so-called remedies for catarrh that are advertised in the newspapers. I am satisfied that little is known, by either the profession or the community, of the great injury done by these agents, especially in America.

During the last twelve years (1872) I have made it a practice to inquire of my patients concerning their efforts at alleviating their catarrhal troubles, and found that about 15 *per cent.* of them had not used any kind of a remedy; about 20 *per cent.* had been treated by physicians, and the remaining 65 *per cent.* resorted to patent remedies for catarrh.

The first class, as they may be called, did not, as a rule, appear as though they were severely afflicted, but few of them complained of very great physical suffering, nor did many of those under 35 years of age lay much stress on their mental suffering. None of their symptoms indicated that their attack was acute, consequently their objective symptoms, such as accumulations of muco-pus, thickened mucous membrane etc., were more marked than their slight subjective symptoms indicated.

Those of the second class were more severely afflicted but still the majority of them complained more of physical than of mental discomfort.

With the third class, the 65 *per cent.* who had resorted to patent cures for catarrh, these conditions were reversed. They complained far more of their mental than of their physical ailments, and all of their symptoms were more severe than either of the other classes. They evidently had far more pain than the second class, but their mental afflictions were the occasion of so much greater solicitude than their physical sufferings, that the latter were made secondary. They complained of loss of memory, melancholy,

* Read before the St. Louis Medical Society Dec. 27th 1884.

dissatisfaction, and were not refreshed by sleep even when they could close their eyes. Many of them said that they felt more tried on rising from bed in the morning, then when they went to bed at night. A large percentage of them timidely intimated that a fear of becoming insane was often forced upon them by their own observations of the action of their mind. This was far more dreadful to them than their physical sufferings.

The male portion of this class suffered much more severely than those of the female portion who had passed their 35th year of age. It is not difficult to account for this peculiarity. The females of this age had learned from experience to dress more in conformity with the laws of health, which, if it did not counteract some of the injurious effects of the "cure," at least it did not increase them, while the males, as a rule, instead of indeavoring to conform as near as possible to the laws of health because of their illness, actually augmented their complaint by an over indulgence in the use of tobacco and stimulants. The disease, because of its being rapidly increased by the irritation of the "cure," seemed to incite them to an increased use of these two prime congestors* to an extent far greater than formerly, in the hope of obtunding some of their mental troubles.

My observations lead me to think that many of our inebriates come from this class; that is, from a class of invalids who are suffering mentally, especially, from nasal catarrh that is being rapidly increased by some cause. Their distress is so great, that it drives them to take *anything* that will give even partial relief.

For many years I have noticed that there is a limit to the use of tobacco by all catarrhal patients, but the limit is sooner reached by this class. As soon as the inflammation arrives at a certain stage of intensity, the result of a sudden increase of the disease from any cause, the pneumogastric nerve is easily affected, then a slight additional increase of the inflammation of the mucous membrane or a slight depression of the system occasioned by a little over indulgence in tobacco, will cause a reaction that will be felt in the stomach, resulting in qualmishness. Under these circumstances, tobacco, in any shape cannot be tolerated.†

---

* There is no such a word as "congestor" but there should be. T. F. R.

† I would like to say in passing, that it would be well for the victim of the tobacco habit to take advantage of this rebelious condition of the stomach, and discontinue the use of this peculiarly facinating agent.

Unfortunately, stimulants do not have a sickening effect on the stomach. Many of the sufferers claim to get relief from it through its obtunding influence, and it seems to counteract an ever present weariness, which is a frequent symptom of these patients. With some, stimulants do not deaden their disagreeable feelings, then they resort to the use of opiates, chloral etc., which is certain to increase the congestion even if it does give relief for the time being. If these deceiving narcotics are continued for a few months, their use will be almost certain to become a confirmed habit.

Such a human being is fast approacting a condition, that may very properly be called, "good-for-nothing." His physical and mental capacity will be so far below par, that he will feel acually unable to make sufficient exertion to attend to his business, nor will he be capable of managing his business transactions if they are in any way complicated.

If to these ailments are added another proof of weakness, the loss of virility, which not infrequently follows as a sequence of excessive catarrhal inflammation caused by any kind of an irritation, the victim is in a fit condition of mind to end his troubles by self-destruction. This method of relief is not an infrequent subject of conversation during the first visits to my office.

These symptoms, which are those of a greatly aggravated case of catarrh, are some of the results that follow the use of newspaper remedies, or, to make it more comprehensive so as to embrace all cases, in whatever way their catarrh may have been increased, the result of the use of agents, which, while they give momentary relief, cause an increase of irritation, that always ends in producing greater congestion, consequently increase of disease.

I have asked my patients for their reasons for employing these newspaper cures when they knew they were ignorant of their composition and effects, their answeres invariably were; that they saw many of their symptoms described in the advertisements and, as these advertisements were often seen in religious papers, they thought they were safe in using the "cure."

The remembrance of the exceeding convincing command that the stomach made to cease the use of tobacco, which it is needless to say was instantly and most willingly obeyed, has given him a good "start," and will exert a potent influence in holding him to his resolution to "quit for good."

These reasons with the fact that it did not cost much (?), induced them to give it a trial.

In many instances I found that they employed these agents more "on account of a fear of what their catarrhal complaint might run into"—to use their own words—than for relief from pain. Accompaning this fear there was another, many of them had relatives who had died of what their doctor called consumption, and they feared that they might have inhereted that disease and that their catarrh was the commencement of it.*

Most of the "cures" are composed of ingredients that produce a cooling and an anodyne effect on the inflamed and irritated mucous membrane, thus relieving the sufferer, for the time being, of the disagreeable heat of the parts and the annoying ever present distress. It is this deceiving property of these "cures" that induces the victim to continue the applications and to make subsequent purchases.

If the "cure" is a liquid, as Sanford's Radical Cure, Syke's Cure, Pond's, Papillon Cure, Lane's Cure, or a powder that is to be put into water and used as a wash as Sage's Catarrh Remedy, Jordan's Cure, Wie De Meyer's Cure, Tousley's Cure, Herman's Catarrh Cure etc., cubebs or camphor or other agent of a cooling nature will form a part of their composition. The effect of both cubebs and camphor are positively injurious, the user taking cold on even slight exposure, and after a few repetitions of these "cures" symptoms of cold will be experienced without any exposure.

If the "cure" is a liquid that is to be used in the form of a vapor, as the Campho-Carbolate Catarrh Cure, or is inhaled from an instrument as Cutlers Inhaler, it will contain tincture of iodine, carbolic acid, chloroform, etc., The vapor of the tincture of iodine is quite irritating to the already irritated mucus membrane, and will cause a profuse secretion of mucus which is conclusive evidence of its irritation. This can be readily proved by inhaling it alone. Carbolic acid always produces congestion whenever its strength is sufficient to induce a benumbing sensation, and this is its strength in the liquid accompaning the Cutler

* By the way; the unproved, cruel assertion, that disease is inheritable—which I have denied to a large number of the members of this society, during the last fourteen years (1870)—has placed many an unearned dollar in the doctors pocket and many an easily frightened man and woman in an insane asylum and an untimely grave.

Inhaler. It is seen that when these agents are inhaled in combination, and especially if chloroform is also a part of the compound, the sensation of irritation that the iodine produces, is not experienced, because the anæsthetic property of the carbolic acid covers it, as it were, consequently the victim is severely injured without being made aware of it.

In fact, so very deceptive are most of these "cures," that, instead of being warned of their bainful effects by their employment, almost every individual who uses them for the first time, experiences, as I have said before, a sensation of relief, and they are greatly elated at their good fortune in finding a cheap, sure remedy.

Unfortunately the pleasant sensations arising from the cooling effect of the cubebs and camphor and the anodyne effect of the carbolic acid are very short-lived, for the reason that the injury done by the first application (that is the irritating effect of the iodine, the congestion following the carbolic acid, and the colds resulting from the cubebs) annuls some of the pleasant sensations produced by the second application; or, in other words, the injury resulting from the first application is added to the irritation occasioned by the disease, so that the pleasant sensations that are induced by the second application are not sufficient to overcome both irritations and leave the victim feeling as markedly improved as from the first application. This result follows each succeeding application, so that the latter applications are made, not because of the relief experienced at the time, but because of the rememberance of the great relief experienced after the first applications. The pleasant sensation becomes less and less with each succeeding application, until the injurious effects are greater than the pleasant effects can overcome, then a slight inconvenience is the result. This result will soon be increased to intolerance, if the "thing" is "pushed" regularly for a few weeks or months, at which time the victim's condition is most pitable indeed, as has already been described.

Frequently before the "cure" is used until the victim is made painfully aware that each application is doing him positive harm, he will observe that immediately after the transient, pleasant effects will pass away, his unpleasant catarrhal symptoms are increased: that is, he takes cold more frequently and more severely; his headaches last longer; his difficulty in breathing is greater; his gaggling and his efforts at clearing his throat in

but these discoverers of a remedy that has long ago been laid aside, always mix with the water, through which the vapor passes, carbolic acid and other injurious agents that produce an immediate alleviating effect but which, as I have said, are harmful in their results.

Strange as it may appear to those who have given this subject a careful consideration, many of these newspaper remedies and apparatuses are prescribed and employed by physicians who stand high in the profession. They are, no doubt, deceived by the cooling effect of the cubebs when applied as a powder, by the alleviating effect of the carbolic acid and by the apparently philosophical method of applying the vapor. These worthless inhalers, with the usual compound of carbolic acid and iodine, are very popular with many English physicians. One ear surgeon of London, who is sometimes quoted as authority, is in the habit of prescribing them for his patients. A London manufacturer of this apparatus, repeatedly informed me of this fact, hoping that it would be a sufficient recommendation to induce me to purchase one of them.

I have collected every catarrh, asthma and hay fever "sure cure" that is in the market, numbering in all 58, and have carefully examined them. Eighteen of these "sure cures" are bald faced frauds. One ounce of quassia chips, a pound of table salt and 40 gallons of water will make a barrel of "sure cure" that sells for one dollar a bottle holding six ounces; the same quantity of water, a pound of muriate of ammonia, a pound of ground cubebs and a little common potash will make another "cure" that sells for fifty cents a bottle holding four ounces. These two are the best of the eighteen frauds.

I do not doubt that some of proprietors think that they have "just the thing," for the simple reason that what they use, are now recommended by many of the profession whose practice is almost exclusively confined to the treatment of this disease, and their methods of application also agree with the method now used by these physicians.

I stated at the beginning of this paper that Americans especially were greatly injured by these advertised cures, I am satisfied from conversation with physicians in all the large cities in Europe, that they do not see this third class, that is, those who resort to newspaper remedies, for the simple reason that very few of the European catarrhal sufferers resort to advertised

remedies, nor do their newspapers advertise catarrh "cures" to a great extent.

It is because that this class, who are very numerous, complains so much and so loudly of their symptoms, that makes it appear as though nasal catarrh was far more frequent now than formerly and far more severe and frequently seen in this country than in Europe; both conclusions are erroneous.

Those of us who have arrived at our fortieth or fifthieth year of age will recollect that very many of our school mates had "dirty noses" and that sniffing up the nasal secretions was a most common practice by both the boys and girls of our young days. None but the most ignorant need be informed that this was due to a profuse catarrh of a semi-chronic form. I do not think that any one will say that they observe to-day, more children with profuse secretion running from their nostrils than they saw in their youth. My observations lead me to say that there were as many children effected with this kind of nasal catarrh 20, 30, 40 and 50 years ago as at present, our attention was not called to it at that time, consequently we did not see it. That there are as many persons suffering from nasal catarrh in Europe as in America, I know from observation, but because of the proneness of Americans to patronize advertisers, and because of their numerous loud complaints after being injured by these advertised cures, this disease appears more frequently, as I have said, now-a-days than formerly, and more frequent here than in Europe.

ARTICLE III.

ELECTRICITY IN DISEASES OF THE NOSE, THROAT AND EARS, AND IN SOME DISEASES OF THE THORACIC AND ABDOMINAL VISCERA WHICH RESULT FROM CHRONIC NASAL AND PHARYNGO-NASAL CATARRH.* By J. R. VAN ALLEN M. D., Kansas City, Mo.

For several years I have been testing the efficacy of electricity as a remedial agent and though at times disappointed in my

*Read before the American Rhinological Association at St. Louis, Oct., 1884.

expectations, at others I have been gratified by its evident power in alleviating diseased conditions promptly and efficaciously. I am convinced that several causes operate to discourage and disappoint many who have made tests of this potent remedy, among which are the exhalted expectations of the operator, its untimely application, the undue strength of the currents and the too frequent and too prolonged subjection of the patient to its influence.

In active congestions it should never be employed till turgesence has been relieved, just as we reduce the acute inflammation before excising a tonsil. When we consider that the primary effect of electricity is to exhalt temperature and increase circulatory congestion it is obvious that the above rule should be strictly observed.

It is erronious to suppose that no benefit is secured unless the patient very sensibly feels the power of the current. Experience proves that the milder the influence, the result being attained, the better it is for the disease and the patient. As there is no mathematical rule regulating the degree nor the term of electrical application it is necessary to be governed in these particulars, to great extent, by the sensation of the subject who will indicate the propriety of lessening the force or limiting its use if pain is produced or existing pain increased, with agitation and excitement accompanying rigors and prespiration. Such symptoms indicate that, at least, the remedy is not beneficial. If, *per contra*, there is induced a bouyant feeling followed by soothed sensations, improved appetite and refreshing sleep, confidence in the ultimate curative influence of the measure may be indulged.

Electricity while certainly a valuable adjuvant can not be regarded as the only requisite in the treatment of catarrhal troubles, but as it serves to allay pain, arouses the digestive and assimilative processes, improves the appetite and induces sleep, it is evident that it paves the way for local treatment which, from experience, we know to be beneficial. Electricity confers tone upon the system enabling it to throw off disease, while by preventing the disposition to readily "take cold" it controls an otherwise constant aggravation of the original malady. With such treatment it is possible to subdue chronic catarrhal inflammation and at the same time remedy hypertrophied and ulcerated mucous surfaces. Aggravated cases of chronic

nasal and pharyngo-nasal catarrh are characterised by general debility with great dyspnœa, night sweats, cardiac palpitation, cough with free expectoration, headache, cold extremities, variable appetite and present the appearances of anemia. The vessels of the pharyngeal and nasal cavities are enlarged, the lining membrane thickened, anæsthesia of the entire mucous surface, paresis of the soft palate, aphonia of some degree, impaired sense of taste and smell, difficult deglutition, insomnia, partial deafness, tinnitus aurium, constipation, deranged kidneys and sometimes irritability of the urinary bladder. In females, to this train of symptoms is superadded, leucorrhœa, amenorrhœa or dysmenorrhœa. Without minutely tracing each individual symptom and condition thus indicated to its ultimate cause, or considering it in its anatomical and physiological relations, it remains that all and singly they are based on a general atonic condition which it is necessary to overcome in order to relieve and this can be more readily accomplished through the stimulant, sedative and tonic properties of electricity scientifically applied than through the slower, more disagreeable and less reliable action of drugs.

This agent may be applied in three different ways viz: By central galvanization which influences the central nervous system including the pneumogastric.

General faradization which affects all parts of the body.

Localized electrization which limits the action to a selected part.

The first two methods are generally adopted, and the application by central galvanization is made by placing the anode to the epigastric region, the cathode first to the frontis and vertex for about five minutes and afterward to either side of the neck to influence the pneumogastric and cervical sympathetic; continuing this for the same space of time it is then applied to the nuchæ and over the entire vertebral column for ten minutes.

In general faradization the feet rest on a copper plate, the anode immersed in a bowl of warm water while the cathode is passed along the spine and over any part to be especially treated, or perhaps a better plan is to make use of both currents applying each for ten or fifteen minutes. General faradization acts similarly to *massage* and is like it at times, of signal service.

Electricity has been found beneficial in the treatment of dyspepsia, a condition frequently complicating our cases. It is best

treated by central galvanization but in connection with general faradization a more marked curative effect is obtained. And, not only can dyspepsia be in this manner relieved but its congener, constipation, can be overcome by extending the application over the abdominal surface.

Aphonia can generally be benefitted by placing the anode over the sternum or at the nuchæ, the cathode being passed over the larynx or directly in contact with it.

Tinnitus aurium has been signally relieved by galvanization; The patient holds the anode in the hand opposite to the ear under treatment, the cathode is applied to the tragus or in the auditory canal first filling it with warm salt water. The application should not be continued for more than fifteen seconds with a mild current which should be very gradually broken by drawing the anode from the tips of the fingers. If a sound of lower tone be produced arrest the treatment till the next sitting. The electrodes should invariably be placed in position before starting the battery.

For loss of taste, use central galvanization by the direct application of the cathode to the tongue and the anode to the ensiform cartilage.

For loss of smell, use central galvanization and localized electrization.

For asthma, due to paresis of nerve tissue surrounding the air cells, use central galvanization.

For menstrual troubles or prolapsus uteri, place the anode to the soles and, dividing the cathode, pass one branch over the region of the uterus, the other over the lumbar region or a positive electrode may be applied to the os uteri. Benefit may be obtained in nasal catarrh by local electrization, place the anode at the nuchæ and pass the cathode over the nose. In atrophic or dry catarrh apply the cathode to the nasal mucous membrane as a stimulant, exciting secretion.

Insomnia can be overcome by central galvanization and general faradization.

Paresis of the soft palate is best treated by central galvanization and general faradization. Place the anode over the ensiform cartilage, the cathode to the palate.

In conclusion I ask for this powerful agent a fair trial, believing from the many excellent results already recorded, that it is destined to play an important part in the future treatment of disease.

Article IV.

Colds.* N. R. Gordon M. D., of Sparta, Illinois.

A common cold is the result of an impress made upon the cutaneous surface; this result is manifest usually upon the mucous membrane of the upper respiratory tract, but it may affect any portion of the organism, and when this occurs, it is known as some individual disease, due to cold.

As a cold is primarily the cause of a large majority of the diseases of the upper air passages, as well as disease elsewhere, it deserves earnest consideration. While present knowledge of pathology and nerve action is insufficient to explain the philosophy of a cold to entire satisfaction, we may, however, by a proper appreciation of the facts and phenomena connected therewith, comprehend the nature of this common complaint. The circumstances necessary to produce a cold may be numerous, but the essential factors are few and always exist. Let us take for consideration a cold which is contracted under marked and favorable circumstances, those which rarely fail to produce a cold, even in those who posses a great amount of reserve vitality. The salient phenomena observed in a cold, are chilliness, with elevation of temperature, inflammation of mucous membrane lining the upper air passages, copious discharge of sero mucus, mucus and muco-pus, and partial anorexia. These phenomena almost invariably obtain, upon an attack of cold, acute catarrh, or more correctly, acute rhinitis. Let us examine the conditions which give rise to these phenomena and philosophize upon the changes which occur in the organism.

The subject is in a free prespiration, remains motionless in a current of cool air and takes cold.

The chilliness or chilled sensation is due to contraction of the arterioles, cessation of prespiration, and subsequent recession of blood from the periphery. The important function of the cutaneous surface is now in a state of suppression, and the internal organs congested; there is a shock, and if the subject now be placed

* Read before the American Rhinological Association October, 1884.

under favorable conditions, reaction will supervene, and the progress of the cold be checked, otherwise it will pass to secondary results. The elevation of temperature is due to the increased amount of blood in the internal organs, producing an exalted vito-chemical change, and to the existence of retained material in the blood, which should have been eliminated by the depurative action of the skin. The equilibrium of the circulation is disturbed, the skin anæmic, the central organs hyperæmic, the cutaneous functions suppressed and the functions of central organs exhalted, the nervous system excited and nature under this embarassment true to her intent invokes the aid of an organ that will supplement the function of an inactive integument. The mucuos membrane, that great internal lining membrane which is a counter-part of the skin itself, is the organ called upon to perform vicarious function. At this stage the schneiderean membrane discharges a copious flow of sero-mucus and there is some irritation of the membrane lining the upper respiratory tract; the nasal discharge changes from a clear watery fluid to a translucent mucus, after which it gradually assumes a muco-purulent appearance, this condition continues for some days, when the inflammation subsides and the discharge regains its normal condition. The mucous membrane of the digestive tract is possibly more or less affected, hence a partial anorexia. We observe the naso-pharyngeal membrane has passed through all the different stages of inflammation and returned, not to the perfectly healthy condition that existed before, but only approximately, the blood-vessels are possibly a little larger, and a degree of sensibility now exists, which did not, before the invasion.

The inflammation may extend beyond the naso-pharynx, into the frontal sinuses exciting pain between the eyes and over the brow, to the eustachian tube, producing some deafness and tinnitus, to the middle ear, originating earache, into the mastoid and ethmoid cells, antrum of highmore or through the nasal duct to the conjunctivæ, producing ophthalmia or pass into the air passages, producing sore throat or laryngitis. We will not consider whether the invasion of the inflammation into the various sinuses and cavities connected with the naso-pharynx is due merely to extension by continuity of surface or to reflex irritability of the sympathetic. The duration of acute rhinitis is dependent upon the extent and severity of the inflammation and to the recupera-

tive power of the patient. The symptoms are familiar to all from personal experience.

The habits incident to a high state of civilization, together with existing constitutional derangements, are sufficient to develop a pre-catarrhal disposition. There is no other cavity of the body, in the walls of which are distributed a greater variety of nerves, and more abundantly supplied with blood vessels, than the naso-pharynx; the delicate surface is exposed to the vicissitudes of temperature, particles of dust and foreign matter floating in the atmosphere are sufficient to make this the most vulnerable point of attack.

It is a known fact that exposure to cold will result in inflammation of certain physiological divisions of mucous membrane, thus we may have a rhinitis, laryngitis, pneumonitis, gastritis. enteritis, etc. Certain constitutional predispositions and systemic conditions will determine the location of the inflammatory action. An important element in the production of the localized inflammation, is the continuous bathing of the parts in the acrid secretions of the membrane itself, acting vicariously for the skin, this inflammation is perpetuated by the presence of this irritating secretion.

As previously stated, the parts affected in acute rhinitis rarely regain a normal status, some time is required for the blood-vessels to resume their natural size, and the restoration of a perfectly harmonious nerve action. Rhinitis is of so frequent occurrence, that recovery does not obtain from one attack until another is inaugurated; these attacks and partial recoveries continue; the parts become more sensitive from disease and the liability to colds greater, until only slight influences or exposures are necessary to produce a cold. Indeed, there are many cases in which the exposures, sufficient to excite a severe cold, are so mild that they are unrecognized by the patient. There is now a high state of reflex nervous irritability. What existed in the outset as a common cold has developed into chronic rhinitis or post-nasal catarrh.

The treatment of rhinitis is evident; restore the function of the cutaneous surface; encourage excretion by administration of copious warm draughts, give some mild and effective laxative.

Preventive treatment: Avoid exposures that will produce a cold, use abortive treatment in the first stage, and thus prevent inflammatory action in any portion of the mucous membrane. Therefore, if we must have a cold, let us regard it as a fortunate occurence, for no other portion of mucous membrane, in the entire body, could be similarly affected and not produce more immediate serious consequences, than that of the naso-pharynx.

Correspondence.

Article V.

Editor Journal:

Sandefjord, Norway, Oct. 25, 1884.

In your Journal for Oct., 1884, a case of "Universal Psoriasis" is related by Prof. A. H. Ohmann-Dumesnil M. D. The patient was treated with arsenic. On reading this article, a paper, published two years ago, by Dr. Greve of Hamar, now director of the hospital in Christiana, was suggested and as its contents are of interest I refer to it. He drew attention to the value of large doses of iodide of potassium in psoriasis, and states that he can, from many years experience, recommend it as a valuable remedy in all varieties of this trouble. He has given it to adults and children without disagreeable consequences. He begins with a solution, 10—300 grm. in water, or some bitter infusion if the digestion is weak and gives thereof a tablespoonful three or four times a day.

He is generally obliged to stop the medication after two or three days, as patient becomes nauseated or has headaches. After these symptoms disappear the treatment can be resumed and continued uninteruptedly, the dose being gradually increased.

When the patient has reached a dose of one grm. tolerance is established and the effect on the eruption becomes visible. If the dose is gradually increased the improvment is rapid. The patches on the face first disappear, then those on the neck, chest, back and lastly on the extremities, where the infiltrated patches look like shining cicatrices.

A case under treatment is related. The patient, a girl of 20, had always been healthy. When she appeared, eight months after the onset of the disease, the greater part of the cutaneous surface was affected. The face, particularly the frontis, was so covered with patches, that she was obliged for appearances to conceal it with a large handkerchief. Upon the anterior aspect of the thigh there were patches as large as the palm, with great infiltration. She began with a solution of iodide of potassium (10.—300 grm.)a tablespoonful three times a day. She felt some

giddiness and nausea, which disappeared in a few days and she continued the remedy without interuption till a dose of 25.—250 grms. was reached. About this time the improvement began, and in a week the skin of the face was normal. She continued to this date (the 6th week) with the same dose and is steadily improving. The patches on the thigh became dry, of a cicatricial appearance and peel no more, no local treatment, not even washing with soft soap and water, has been used in order not to obscure the action of the iodide of potassium.

Lately Dr. Haslund, head surgeon at the hospital for skin diseases in Copenhagen, has corroborated Dr. Greve's statement. He has made several trials of the remedy in cases of psoriasis and has just published his observations. I will here refer to case VI. E. F——., aged 24, came into the hospital July 13, 1883. Had always been healthy and without hereditary predisposition to skin diseases. Had been affected for a month. There were patches on the head, chest and back, an eruption of psoriasis guttata et universale diffusa spread over the body. On the frontis, along the border of the hair, the patches were confluent and were here, as elsewhere, covered with thick white scales. At some places fissures and bleeding excoriations were seen in the patches, caused by energetic treatment with external remedies.

July 15th. The treatment began with sol. iodide of potassium grm. 10.—200, one tablespoonful four times a day.

July 17th. Same solution, one tablespoonful five times a day.

July 19th. Continued solution, one tablespoonful six times a day.

July 21st. Continued solution, one tablespoonful eight times a day.

July 24th. Continued solution, the whole portion *pro die.*

July 20th. Sol. iodide of potassium, grms. 12.—200, *pro die.*

July 28th. Sol. iodide of potassium, grms 15.—200., *pro die.*

July 31th. Sol. iodide of potassium, grms 20.—200., *pro die.*

Aug. 6th. Sol. iodide of potassium, grms 30.—200., *pro die.*

Aug. 10th. Sol. iodide of potassium, grms 35.—200., *pro die.*

Aug. 13th. The patches are smaller and paler, but are still elevated at the borders where the scales are falling off, feels better, appetite good. grms 40.—200., *pro die.*

Aug. 17th. grms 42.—200., *pro die.*

Aug. 20th. Yesterday, giddiness and nausea; could not take mixture.

The patches are now quite pale, smooth, very little infiltration in some of them. Diminished production of scales. He had on the whole taken 634 grms. of the iodide.

R. Picis lith anthracis. Sig: apply locally twice a day.

Aug. 27th. The patches have all disappeared and patient leaves the hospital cured.

None of the other patients using this remedy have taken as large a dose, but the mixture agreed with him exceedingly well and no reaction was visible before he had taken 42 grm daily for two days, the giddiness and nausea obliged him to abandon the medicine. The disease was at this time almost cured. After two applications of tar the last sign of the infiltration disappeared and when he left the hospital his skin was quite smooth. He had only used the iodide of potassium treatment a little more than a month, although the eruption covered a considerable part of the body and was of recent date. I do not believe any other treatment would have had a similar effect in such a short time. His appearance was healthy while he was in the hospital and he seemed to have gained strength, his appetite was good and bowels regular.

T. Christensen, M. D.

EDITOR JOURNAL:—

THE LATEST CHOLERA INVESTIGATIONS.

The conflict among investigators as regards the comma bacillus promises to be of long duration and increasing intensity. Lately, Privatdocent, Dr. Emmerich has given his views and related his experiences to the Medical Society of Munich (Bavaria.) He was sent by his government to Naples during the epidemic to study the nature of cholera and the manner of its propagation. After mature reflection he has come to the conclusion that there is nothing in Koch's doctrine and that the comma bacillus is a fraud. In 10 cholera cases the comma bacillus was absent. On the other hand he found without exception in the blood, tissues and contents of the bowels, a cylindrical bacillus which he claims is the true generator of cholera. Inoculation with pure culture of this bacillus produced in guinea-pigs all the symptoms attending true asiatic cholera. Emmerich does

not state whether he obtained his bacillus from the living blood and tissues or from the cadaver. Anything taken from the organism after death is unreliable and many mistakes have been made and false conclusions drawn from experiments which seemingly proved the specific pathogenic nature of a bacterium, whereas, in reality, the experimenter was deceived by simple artificial septicæmia. It must be admitted, that the absence of the comma bacillus in the blood and the tissues is a "sore spot" in Koch's doctrine, for in those bacteridian affections that are best known and studied up to the present time, namely anthra and tuberculosis, the germ is found throughout the organism.

Emmerich's experiments are counter balanced by the results of Doyen's (Paris) investigations, who found the comma bacillus in all cases of cholera and succeeded in obtaining cultures from inoculations made with small pieces of liver and kidney. True, the cultures were not pure, there being other micro-organisms mixed up with Koch's bacillus, but inoculation produced typical cholera in dogs and guinea-pigs. If Doyen's assertions should prove correct, a great step forward would have to be registered in the pathology of cholera.

For the present there is no prospect of a speedy and definite settlement of the etiology of cholera. Many articles will, no doubt, appear in the near future some affirmative, others negative of Koch's doctrine. What the final outcome will be, nobody can fortell. In matters of bacteriology, more than in any other, evidence has to be weighed not counted. Koch never has been successfully contradicted as yet by any one; until this is done it is advisable to believe in the sayings of the great master of parasitology and simply tally those of his adversaries. With a greater uniformity of method it is to be hoped that less conflicting results will be obtained by different observers. Under present circumstances it is almost impossible to distinguish the chaff from the wheat. Bacteriology is a science *per se* and very able pathologists may be, and certainly are, deficient in this branch of medicine. Only those conversant with all the intricacies and technical difficulties of studies of this kind are entitled to a hearing, But too many pass a judgement on the comma bacillus who do not know a microscope from a horse-car.

EVILS OF EXCLUSIVE SPECIALISM.

The kind of fruit borne by the tree of exclusive specialism

is well exemplified by a paper of Dr. Crothers read before the American Association for the cure of inebriates at its last meeting. The bacterian craze gave birth to the microbe of eclampsia and the priority of the discovery of the delirium tremens microbe, is due to a witty medical philosopher of the country who styled the dangerous parasite "the worm of the still." Indeed: "*Difficole est satirum non scribere*" in the face of the many attempts by specialists to make something out of nothing and to clothe a simple subject with the pomp of verbiage and the glitter of general scientific phrases. The gist of Dr. Crother's paper is that inebriety is contagious, and by many high-sounding words and finely-spun arguments he tries to prove a proposition which all common sense people hitherto considered as firmly established as the simplest mathematical action.

Cases illustrative of the contagious character of inebriety are given. Two farmers, who are very intimate, get drunk as often as they meet, two railroad officials ditto; a gentleman of high intellectual qualities sets a bad example in the club to which he belongs and his admirers imitate him, all taking a liking to drink.

These cases are certainly authentic but by no means remarkable and any saloon keeper of average experience will corroborate the observations of Dr. Crother. For the sake of completeness we will add that "treating" is a dangerous complication of the disorder, cases being sometimes observed where two or more friends start on lager, continue on champagne and wind up with cocktails, and all this by the contagion of conviviality. A "neurosis" does not seem to be altogether necessary for the development of drunkenness; even savages with nerves made of cat-gut take to the vice as the duck takes to water. They are neither hereditarily endowed nor are their nerves unstrung by mental work or business cares. It is the old tale of bad association corrupting good morals.

RELIABLE SIGN OF PREGNANCY.

And now comes the glad news that at last a reliable diagnostic means of pregnancy has been discovered; the discoverer is C. Reinl and "Ein neues sicheres ziechen der Schwangerschaft in den ersten Monaten" is the title of his work. The discovery was made in Hegar's clinic. This sign of pregnancy consists in an extraordinary softness of the lower segment of the uterus

When a student we were taught that a soft and patulous os was a sign of pregnancy. It seems, then, that the softness extends a little higher up, that's all.

HYPNOTISM A CURE IN CHOREA.

A girl, 12½ years of age, has been cured of chorea by hypnotism. The case is reported by Beaunis in the *Gaz. Med.* 1884, Aug. All other treatment had been of no avail, cold douches included. A cure was effected in a few days. There seems to be a great field for the therapeutic employment of hypnotism. We would, however, in the treatment of chorea, if everything else failed, rely more on Van Bidders' plan of absolute rest in bed, passive movements and light massage than on hypnotism.

L. BREMER, M. D.

2023 Park Avenue.

EDITOR JOURNAL:—

VINEGAR IN DIARRHŒA AND DYSENTERY.

About a quarter of a century ago, when giving me some good advice for a young practitioner to follow, the late Dr. B. F. Edwards, of St. Louis, Mo., whose accuracy in the measurement of the action of remedies, truth in statement, and justice toward the members of the profession, made him a shining light in the early history of our state, among other things, said: "Never make fun of an old woman's remedy, for not only will you give offense and thereby injure your practice to the extent of her influence, but you may throw away what would have proved upon trial to be a valuable adjunct in your practice." He then cited this case to illustrate the importance of his injunction. "In 1830, while practicing in Madison County, Ills. I was induced by the representations of *an old woman* to make the trial in dysentery and diarrhœa, of tablespoonful doses of *pure cider vinegar*, with the addition of sufficient salt to be noticable, and it acted so charmingly that I have never used anything else." He was prescribing it in 1870, making a period of 40 years. I have no doubt

but that he was the first to professionally prescribe this remedy in the diseases mentioned.

Respectfully, Amos Sawyer, M. D.

St. Louis, Mo.

EDITOR JOURNAL:—

In your note of the 29th you write me "to contribute an original article" for the ST. LOUIS MEDICAL AND SURGICAL JOURNAL "short and practical on gynæcology or obstetrics." Now that is one of my best reasons for not writing; that original ideas and original articles are rare diamonds. I once undertook to say something new on the treatment of prolapsed umbilical cord in the knee and elbow position. It was a genuine discovery of my own. In fifteen cases, that I had seen, I had saved the lives of thirteen children, I read the paper, a very short one; immediately several gentlemen jumped to their feet and all knew all about it long ago, especially the elder P—, whose knowledge extended at far back as Pompeii. Then Dr. Yarnall published a synopsis of these cases in two St. Louis Journals (yours and another) in January and Febuary of one year. I think either 1866 or '67, in July, or possibly as early as June, of the same year, some medical gentleman of New York City claimed my new method as their own, never once referring to the backwoods St Louisian, who six months before had published his cases at home. They may not, however, have seen the reports.(?)

In spite of my ill success at my first attempt to say something new and do some good thereby, I was again tempted to tell how I succeeded in removing the placenta, especially in abortions, by placing patients in the semi left lateral position, introducing Sim's speculum, drawing the womb down and thus seeing what I was about, seizing the retained placenta and easily removing that, which before gave the most skilled midwife a vast deal of trouble and often endangered the life of the patient, owing to the fearful hæmorrhage or subsequent inflammation on account of the long and rough handling. Well, I told that too in the Medical Society and of course it was nothing new. Again P—, the elder B— and many others had either known it already or

had often *thought* of it. Then, Dear Doctor, I more than fully realized Solomon's saying; "There is nothing new under the sun" and with your consent, I think I will never write again, except when imperative duty compels me.

Your Sincerely,

T. L. PAPIN, M. D.

FORMULA FOR CYSTITIS IN OLD MEN WITH PROSTATIC ENLARGEMENT.

℞ Tr. Belladonna (German).
Tr. Cantharides aa f℥j.
M. Sig. 15 to 20 drops at 2, 6, and 9 o'clock. P. M.

Spring Valley, Minn.

R. L. Moore, M. D.

ARTICLE VI.

Editorial Department.

LEGRAND ATWOOD, M. D., Editor. FRANK M. RUMBOLD, M. D., Publisher and Proprietor.

ASSOCIATE EDITORS:

H. CHRISTOPHER, A. M., M. D., St. Joseph, Mo. WM. A. BYRD, M. D., Quincy, Ill. A. E. PRINCE, M. D., Jacksonville, Ill.

Original articles, correspondence, short reports of cases from private practice, solicited from all quarters.

Eastern Agents, J. H. Vail & Co., 21 Astor Place and 142 Eighth St., New York.

European Agents, Trübner & Co., 57 & 59 Ludgate Hill, London.

Terms $3.00 per annum, in advance.

ST. LOUIS MEDICAL SOCIETY AND [illegible]INGS.

The ST. LOUIS MEDICAL SOCIETY has [illegible] publication of its OFFICIAL PROCEEDINGS and SCIENTIFIC PAPERS to THE JOURNAL for the year 1885. We convey this intelligence to the profession with pleasure, as it insures its members the possession of both interesting and instructive discussions and essays upon Medical Subjects at the hands of leading men. Those who are not already subscribers will do well to immediately avail themselves of the opportunity.

Publication office, 2622 Washington Avenue.

NEW YEAR CARDS.

We acknowledge with pleasure the reception of cards of the season from the well known firms of Parke, Davis & Co., of Detroit and Wm. R. Warner & Co., of Philadelphia. The souvenirs are appropriate emblems illustrating the kindly relations so firmly established between physicians and houses that furnish them so many and such neat and valuable remedies. We wish both firms bountiful patronage and unlimited prosperity.

An individual recently presented himself to the manager of this JOURNAL with written testimonials warranting his recognition as a reputable physician, and his social demeanor and connection superadded, secured not only kindly professional and personal consideration but also the publication of a communication from his pen upon the subject of hæmorrhoids. Soon thereafter, there appeared in the daily prints, over his name, the characteristic advertisement of a quack and we realized, with mingled feelings of disgust and mortification, that the JOURNAL had been hoodwinked and made subservient to the designs of a professional enemy. A few days since, however, we derived some satisfaction from reading in one of the morning newspapers that a person of the same name had been run over by the "Black Maria" at daybreak, while he was lying in the street. May such be the fate of all who violate either the written or unwritten laws of professional honor.

STATE INEBRIATE ASYLUM.

It is understood that a bill authorizing the establishment of an institution for the care of inebriates is to be introduced into the Missouri Legislature during the present session by Dr. Allen, of Clay County. There is every reason why such a measure, if carefully prepared by one thoroughly acquainted with the subject, should become a law. With the various provisions of the bill we have had no opportunity to become familiar as it has not yet left the press, but it is a reasonable supposition that as its originator is an accomplished physician and experienced legislator he has incorporated the views of those in other states who have had practical experience of the workings of such asylums, and has provided against any infraction of the legal rights of those who shall become its inmates.

An institution of this character should be neither an insane asylum nor a penitentiary, but possess to some extent the nature of both. It is obvious that more harm than help would accrue to dipsomaniacs from confinement with the really insane, and

such unfortunates, if incarcerated in anything even remotely resembling a penitentiary, would be irremediably injured by the destruction of that self-respect which it is essential to preserve and increase if we would save them from themselves.

Under existing laws the personal freedom of an inebriate is fully protected. He cannot be detained against his will, either in a private or public institution, after he "sobers up" unless he has been, by competent authority, declared *non compos mentis*. With such liberty, cure is impossible and hence it is essential that provision for detention and control shall be features of any measure having for its object the redemption of those incapacitated for worthy purposes by inebriety.

It is certain that a well framed bill will recieve the sanction and assistance of press and people.

THE STATE BOARD OF HEALTH AND THE MEDICAL PROFESSION.

vs.

ADVERTISING QUACKS AND THE NEWSPAPERS.

An effort to amend the act regulating the practice of medicine in this state, has aroused a storm of indignant remonstrance from the newspapers which are seconded in their hostility by published epistolary efforts emanating from unworthy practitioners who, balked in their labors to defeat the bill in its passage through the legislature, seek now by cooperating with a venal press to not only prejudice legislators against the improvement of the measure, but to secure the annulment of the act. That these base fellows should endeavor to acquire respectability by dragging the standard of medicine down to their level of ignorance and impudence is not surprising. Safety in the prosecution of their nefarious impositions upon the community, and security from molestation in palming off, through the medium of printers ink, ignorant pretenses for professional ability, are only to be obtained by destroying the powers conferred upon the State Board of Health. The measure sought to be amended was framed by able and conscientious medical men solely to protect the health and

life of the community and at the same time draw permanently the line of demarcation between a noble profession and its ignoble parasites. With these laudable objects in view and partly accomplished, it was reasonable to expect that any facilitating suggestion would meet with hearty approval by the intelligent classes interested in promoting the public welfare, but an effort to amend the act by striking out the provision which permitted any one to register who had practiced medicine in the state for five years preceeding its passage, has combined all the corrupt elements in a last grand effort to destroy a measure of inestimable importance. When it is understood that nearly every non-graduate and quack within our borders have availed themselves of this concession and that striking out the five years clause would exclude from registration only a lot of contumacious humbugs, it does seem strange indeed, that any one outside the ranks of interested charlatans could be found to oppose the proposition. But surprising as it is, with singular unanimity the newspaper press has for some days teemed with editorials pregnant with ridicule, sarcasm and invective directed against the profession of medicine, its scientific and honest votaries, the State Board of Health, the proposed amendment and indeed the life of the Practice act. Theretofore their columns were disgraced by denunciatory articles hinging upon the legal efforts of the Health Board's secretary to force a recently imported quack and mountebank to comply with the law protecting the people from his machinations. One would suppose that the learned members of the editorial profession would, with that avidity which generally characterizes their actions in behalf of laudable objects, lend their very best efforts in furtherance of any measure emanating from and beneficial to another learned profession. The brotherhood of science demands such amenities, refusal to extend them invariably cloaks some base design. The learned editor forgetful of his exhalted mission, reckless of the demands of duty, at the sacrifice of his better judgement and regard for the honest and true, strikes hands and joins forces with that most ignorant, depraved

and dangerous of all classes, the medical quacks, and with the mightiest engine known to civilization, hurls his intellectual and knavish arguments against the honor, health, life and welfare of the state and people. The learned editor is well aware that only those who have devoted years of study to the acquisition of knowledge in medicine are fit to be trusted in the treatment of disease. The learned editor is personally an ardent admirer of the learned physician and never submits his precious body or cultivated mind to the ministrations of an advertising quack; indeed, he exercises his best judgement in selecting his family physician and yields to him profound respect and esteem. But the learned editor is subject to the infirmities of ordinary mortals and is perfectly willing to jeopardize the health and life of the community and fasten disgrace upon a useful and honorable profession, if by so doing he can obtain advertisements and enrich his paper. Literaly, he "bends the pregnant hinges of the knee that thrift may follow fawning." This prostitution of a noble office, this degradation of a potent power, this reversal of the chief object of modern journalism is one of the many signs of popular corruption, for a venal press represents a debased people.

That the state should maintain a Board of Health is self evident. That it should be endowed with supreme powers, under constitutional restrictions, is essential to the purposes for which it is created. That, organized of able material, one of its functions should be to pass in a judicial capacity, as an ultimate court of resort, upon the qualifications of those who desire to take charge of the health of the community, is apparent to thoughtful observers, and for these and other potent reasons it is not believed that the representatives of enlightened constituencies can be induced to step backward in the march of civilization by anuling a safeguard of the people in the interest of the ignorant and the designing.

Translations.

ARTICLE VII.

EXCERPTS FROM LATE GERMAN JOURNALS. By S. POLLAK, M. D. of St. Louis.

Translated for the JOURNAL.

THERAPEUTIC SIGNIFICANCE OF OXYGEN AND OZONE, by Filipow, (*Plügers Arch. f. d. Physiologie.*)—Experiments made in the laboratory of Kassan, on men, dogs and frogs, lead to the following conclusions:

1. Inspiration of pure oxygen is not preferable to the inspiration of pure air, at least in its effect on contractions of the heart, respiration and temperature of the body.

2. In cases of poisoning with chloroform, aethilalcohol, sulphate of hydrogen, or carbon oxyde, no greater advantage is derived from inspiration of pure oxygen, than from inspiration of common pure air.

3. Inspiration of diluted ozone can not be considered a hypnotic, as Binz says.

4. Inspiration of concentrated ozone causes a strong irritation of the mucous lining, and is therefore injurious to men and animals alike.

5. The absorption of ozone into the blood through the respiratory organs is very problematical.

SUGAR IN THE BLOOD, ITS SOURCE AND ITS SIGNIFICANCE, by Prof. Seegen, (*Ibid.*)—Sugar is a normal constituent of the blood, and is by no means a minimal part; it varies (in dogs) between 0.1—0. 15 *per cent.* The quantity of sugar in the heart (right-heart) and in the arterial blood (carotis) is equal. There is a difference in the quantity of sugar in arterial and venous blood. The vena-porta blood contains less sugar than that in the carotis. The blood coming from the liver contains double the quantity of sugar, than that going to the liver. Seegen found in the portal blood 0.119 *per cent.* and in the hepatic blood 0.230 *per cent.* of sugar.

Ligation of the vena-cava in the abdominal cavity increased the sugar in the carotis to nearly that of the liver.—Measurement of the quantity of blood coursing through the liver in a given time resulted: in animals of 7, 10, 41, kilos. in 23 hours, run 179, 238, 433 liters of blood. If the blood takes up as an average of 0.1 *per cent.* of sugar in its course from the liver, then there will be 179, 233, 433 grm. of sugar taken into the circulation.

As to the source of the sugar in the blood, experiments proved, that at least in carnivorous animals, it is exclusively made of albuminate substances; so that the largest part of carbon contained in flesh food, must be for saccharigenous purposes. Since normally sugar is not excreted, it must necessarily be kept in the circulation. The glycogenous function of the liver, and its distribution in the blood is one of the most important metamorphic functions.

CHANGES OF THE BLOOD IN PREGNANCY, by Cohnstein (*Ibid.*)—Great is the difference of opinion as to the change of blood in pregnancy. Cohnstein made experiments on pregnant and non-pregnant sheep with Hayem's micrometer. In pregnant sheep, the number of blood corpuscles in a cubic centimeter was, minimum 8,305,555, maximum 10,300,000 mean 9,742,222. In non-pregnant sheep, minimum 11,300,000 maximum 12,950,000 mean 12,090,000. It was expected that the percentage of hæmoglobin would also be proportionately less in pregnant animals, but such was not the case. The percentage of hæmoglobin in pregnant animals was 7.8 *per cent.* in non-pregnant animals 5.5 *per cent.* Blood taken from the carotis of pregnant and non-pregnant animals, demonstrated that the blood corpuscles of the pregnant animals are larger, more voluminous, consequently their quantity is largely compensated by their increased size.

LOCAL ASPHYXIA OF THE EXTREMITIES IN AN ATHEROMATOUS WOMAN. (*Deutche Med. Ztz.*)—A woman, aged 68, who had suffered much from malarial fevers, was not nervous, and had not menstruated in 20 years, had local asphyxia in all four extremities. Bloodvessels strongly atheromatouly degenerated. Gradual changes of temperature in hand and feet brought out the symptoms of local asphyxia, they became cyanosed, a sensation of crawling, piercing and numbness, icy coldness. Plunging in warm water gave temporary relief. It is thought the occlu-

sion of the arterioles is caused by the atheromatous process, and the hyperæsthesia of the vaso-constrictors; the last is probably dependent on malaria. The last hypothesis induced the exhibition of quinine in combination with the constant current.

In the international congress for Hygiene, in session at Hague in August, 1884, the following resolution was unanimously adopted: CREMATION OF THE DEAD IS EARNESTLY RECOMMENDED TO THE RESPECTIVE GOVERNMENTS. The subject of cremation has been warmly discussed, in view of the irresistible approach of asiatic cholera. Koch has never expressed a decided opinion as to the mode of the disposal of the dead from cholera. He has thus far occupied himself with studies of the true pathology and etiology of cholera. The opponents of cremation may say, that the comma bacillus is only short lived, and dependent upon oxygen, heat and moisture; that its proliferation in the interred subject is rather improbable, and its destruction by fire is superfluous. Admitted, even that the remains of choleraics being the bearers of infection, they can only be dangerous before and not after interment, to the cortage accompanying them to their resting place. Experiments however have demonstrated that the interred remains are infectious, and that conservation of the miasma in the grave is at least possible. The corpse contains water in sufficient quantity for the nutrition of the bacilli, and where the moisture of the remains may be wanting, it will be abundantly supplied by that in the earth. The requisite minimum temperature according to Koch for cholera bacilli of 16° C. is often exceeded in the grave. They can not be destroyed by cold, they stand freezing very well, as well as absence of air. Under an exhausting process their growth is arrested, but not destroyed; oxygen was only wanting. There is however also some air in the ground so that complete decay is much retarded.

The harmlessness of the grave to the comma bacillus may be taken from Koch's own statements: "Since I saw that the comma bacillis can stand a very low temperature, and I know they can exist separated from the human body, so I deem it possible that under certain conditions they may maintain themselves, although not thrive, in the ground for a great length of time." In reference to ground water as a medium for propagation of cholera, he says bacilli may develop in an earth where stagnant

pools prevail, especially in the vicinity of animal excreta or of decaying plants.

These very possibilities ought to suffice to make cremation if not obligatory, at least encouraged on the part of sanitary authorities. That the burning up of the remains is the best mode of destroying all infectious materials is universally conceded, why not enforce it?

ARTICLE VIII.

EXCERPTS FROM LATE FRENCH JOURNALS. By S. POLLAK, M. D., of St. Louis.

Translated for the JOURNAL.

TREATMENT OF CHOLERA BY ENTEROCLYSMA AND HYPODERMACLYSMA, by Cantani. (*Italia Medica.*)—Subcutaneous infusion of salt must be unremittingly kept up, as long as watery discharges from the bowels last. A fine trocar should be used, and should be kept inserted in the skin, connected by a rubber tube with the reservoir containing the saline solution, and which must be suspended above the patient. The flow should not be interrupted unless the fluid in the areolar tissue causes a great swelling and pain, then only needs the tube to be compressed a little, until absorption has been effected. The infusion must be in proportion to the escape from the bowels and in a measure compensate it. Several litres can thus be infused. The place of infusion should be near the neck, or the heart, even in many places at once; the object must always be to maintain the circulation of the blood. The temperature of the infusion should be that of the body:

For an entero-clysma C. recommends the following mixture: Acidi carbol. crystal 0.5—1—2 grm. Sp. vini rectificat. qs. ad. sol. Aq. destil 2,000 grm.

Since cholera bacillus can live only in a fluid of alcaline reaction, attempts may be made to inject diluted acids, hydrochloric acid, lemon acid, etc.

The inspiration of oxygen in cyanotic cholera patients is only then available when the circulation has been kept up by saline infusion.

In order to make hypodermatic saline injections very effective, they must be begun early, or a drying up of the tissues becomes very marked, ere irreparable anatomical and chemical changes have taken place, ere cramps and the algid state have set in.

The saline infusion should not be resorted to, in vomiting and diarrhœa, the ordinary therapeusis with entero-clysma will suffice, only when these fail and watery discharges begin, the saline hypoderma clysma must be begun.

TREATMENT OF ERECTILE TUMORS BY ELECTROLYSIS, by Delore. (*Le Progress Medical.*)—This proceeding has the inconvenience of being very painful, but it has the advantage of being extremely precise, and leaves only an insignificant cicatrix: furthermore, if the object of the operation is not attained in the first instance, it can be easily repeated. This is a precious advantage over all other methods. With this method, one has not only an instantaneous thermic action, but also a persistent chemical action. Hence when the erectile tumor is not too voluminous, electrolysis is superior to any other method; but if the tumor is too voluminous, he ligates and incises it, and cauterizes the incision with chloride of zinc paste.

Hernot prefers the thermo cautery to electrolysis; the action of the latter is chiefly in its coagulating property, hence it is very apropos in aneurisms, whereas cauterization is depended upon in erectile tumors.

Duploy sees no superiority in electrolysis over ignipuncture, except it be its coagulating property; ignipuncture can be performed with a platinum needle heated to white heat in an alcohol flame.

TRANSITORY APHASIA FROM TOXIC ORIGIN, by Dunoyer. (Societes Savantes) (*Ibid.*)—A girl of 20 years, in a state of advanced tuberculous cachexia, thought herself incommoded by helminthiasis, took five centigrammes of Santonine; three hours later she could not speak, and manifested by wild gesticulation her impatience at this untoward event. But next day she spoke quite well again. The aphasia commenced at the very moment when every thing appeared yellow before her eyes, and it disappeared again as soon as she had a normal perception of color.

TREATMENT OF SCIATICA BY REFRIGERATION WITH CHLORIDE

OF ETHYL ATOMIZED. by Debove, (*Paris Medical.*)—D. claims, having obtained marvellous results by congelation in sciatic neuralgia. The numerous modes of treatment of this malady have often proved unsatisfactory. There are cases which have gone through an entire series of treatment in general use. By revulsive medication we act upon a number of sensitive terminals; this action is limited on account of the moderation necessary in its application. By congelation a larger number of nerve terminals can be reached than by cauterizing punctures or vesicants. The atomizing liquid is chloride of ethil, which boils at 22° above zero, whose volatilisation produces a great cold, and when applied to a young subject, sciatica disappeared in a few minutes. With the disappearance of the pain, motility returned in the limb. Several required only one application, others had to receive 3—4 at an interval of 14 days. The patients preferred it to any other revulsive treatment.

A SPECIFIC AGAINST MIGRANE. (*Bulletin de therap.*).—A mixture of Bromide of potass with deorderized tinct. of opium is regarded as a specific against the paroxysmal pain in migraine. 1000 cases are known to the writer, who found immediate relief from migrainous pains, who could get off and attend to business at once. A women, subject to hereditary hemicrania for more than 30 years, was enabled to anticipate her sufferings by 90 grains of bromide of potass with 40 drops of deodorized tincture of opium.

AN OSSIFLUENT ABSCESS OF THE ORBIT OF A NURSLING CURED BY THE ADMINISTRATION OF IODIDE OF POTASS TO THE NURSE (*Paris Medical.*)—The following case will prove that certain affections of the new-born, not depending upon a special diathesis, can be cured by giving the appropriate remedies to the wet-nurse. These medicines pass through the milk and are ingested by the nursing child. The abscess was on the level of the lacrymal sac, and some physicians thought it a lacrymal fistula but there was no direct communication with the lacrymal sac. Cure was effected in a fortnight.

IODOFORM AND ORGANIC LESIONS OF THE HEART. (*Giornale de Medica Aterapia.*)—Prof. Testa has successfully experimented on the curative action of iodoform in organic lesions of the heart,

not against the lesions which are incurable, but against the functional troubles resulting therefrom. He gives iodoform, seven centigrams daily in four pills, one every four hours continued for a long time, often a whole month. Iodoform has a tendency to diminish the frequency of heart-beats, while it increases arterial tension.

PARASITICAL OSTEO-PERIOSTITIS OF THE ALVEOLAR PROCESS (*Paris Medical.*)—Another new disease due to micro-organisms. It seems that parasites will be the masters of etiology. Therapeutics will be reduced to the use of bichloride.

Alveolar periostitis is a local infectious parasitical disease.

The salivary tartar which detaches the gums from the neck of the tooth enables microbes to enter the cement and alveolar substance, determine an alveolar inflammation, and enter all parts of the tooth which becomes profusely altered. An abundant suppuration, filled with micro-organisms is established, the enamel is destroyed and the tooth, completely infected, is lost.

LIBRARY

The treatment consist in entirely destroying the germ where the alvoelar border is resorbed and introducing Bichl. of mercury 8—4 to 1000.

INCORRIGIBLE VOMITING IN PREGNANCY, INSTANTLY CURED BY THE IRRIGATION OF ETHER UPON THE EPIGASTRIUM. By Galceran (*Gaceta Medica Catalana.*)—A primipara of feeble constitution, vomited frequently since the second month of pregnancy. At the fifth month it became almost incessant with fainting spells and general prostration, tinnitus and rigors; her life was in danger. After exhausting all the remedies hitherto recommended, irrigation of ether upon the epigastrium arrested the vomiting, which did not recur in 24 hours, when again an irrigation cut short the process permantly.

(Dilation of the cervix would have been just as successful.)

CORROSIVE SUBLIMATE IN GRANULAR OPHTHALMIA. By Dujardin (*Recuesl d' Ophthalmologie.*)—D. has obtained excellent results in granular lids with corrosive sublimate. He gives ℞. Corrosive subl. 1 grm. Alcohol, 10 grm. Aq. distil., 240 grm. This applied with a camels hair pencil upon the everted lids. It acts as a modifyer and a parasiticide.

IODOFORM IN HERPES OF THE CORNEA. By Dianoux (*Paris Medical.*)—Having exhausted all known remedies against the intractible disease, he had recourse to applying dry finely pulverized iodoform upon an ulcer of the cornea, closed and bandaged the lids. In a few days the ulcer commensed to cicatrize. In 40 cases of herpetic ulcer of the cornea he has met with like results.

COLD BATHS IN THE TREATMENT OF TYPHOID AND PUERPERAL FEVER.—DR. E. VINCENT. Surgeon in Chief of the "Charite" of Lyon, (*Paris Medical*) has introduced the cold-bath treatment in puerperal fevers, as he did in typhoid fever. The results as published in a monograph are:

1. The administration of cold baths is possible in the newly accouched; seized with puerperal fever.

2. Cold baths have a very sure and prompt efficacy in febrile conditions following confinement.

3. They are indicated in all hyperthermic complications consequent to confinement, except in acute peritonitis.

4. The indication for cold does not exist, unless the fever is persistent, without notable morning remission, at 40°, and when quinine and diffusible stimuli have proven powerless; when fetid lochial discharges are present, which resisted intra-uterine antiseptic injections.

5. Cold baths should have a variable temperature from 28° to 18°, and even lower, according to the ulterior effect to be produced; the temperature should be lowered at least 2°.

6. Cold baths should be repeated every three hours until the temperature has reached 38°, at which it should rest 10 or 12 hours.

7. When baths at 18° or 20° given every 3 hours do not lessen the temperature very notably, ice bags should be placed on the stomach in the interval.

8. Conjointly with the baths, alcoholic stimulants should be largely given; alimentation of liquid food, such as potage, mea broth may be administered liberally.

SEMIOTIC VALUE OF HYDRORRHŒA IN CANCER OF THE UTERUS (*Paris Medical.*)—Hydrorrhœa is a flow from the uterus of a clear limpid slightly citrin aspect, inodorous and rich in albumen.

It results from transudation of serum, favored by two factors; the congestion of the vessels of the uterus, and the infiltration of the uterine tissue by the cancerous neoplasm.

The first acts by the accumulation of blood, which distends the vessels, and by the production of carbonic acid, which excites the contraction of the uterine tissues.

The second acts by the anatomical modification of the blood vessels (cancerous degenerescence) which makes the walls of the latter more permeable; and the neoplastic element itself causes a reflex action of the uterine fibres.

The two factors by their double action, converge to the same end, that is, favor the transudation of sanguinous serum, by the anatomical modification of the vessels, and by exciting an active tonicity of the uterine fibres, they force the flow of the serum outward under the form of hydrorrhœa.

Hydrorrhœa is the premonitory symptom of cancer of the uterus; it is the earliest sign of a cancerous invasion; it preceeds all other symptoms of cancer of the body of the uterus. When pains and hæmorrhages supervene, it shows that the cancerous invasion has reached the cervix, which does not occur until the hydrorrhœa has given place to cancerous ichor.

Hydrorrhœa is preceded by pain and hæmorrhages when the cervix is first attacked, it is only the invasion of the body of the uterus which brings on hydrorrhœa.

It is also preceded by hæmorrhage in uterine fibroma, which undergo cancerous degenerescence; it is the cancerous neoformation which brings on hydrorrhœa, which can also be confounded with the watery escape in pregnancy, either symptomatic or idiopathic. The differential points are: its mode of production, its perfect fluidity; its limpidity and richness in albumen, and above all, the presence of cancerous cells in the liquid.

The prognosis of hydrorrhœa is very grave, for it is the announcement of a cancer in the uterine body. By its long duration and abundant production, it carries off a large quantity of albumen, causing rapid exhaustion.

Treatment must be directed in two directions.

1. To combat the flow by astringents.

2. To improve the general health by arsenic, tonics and good diet.

NEURALGIA OF CLITORIS A COMMENCEMENT OF LOCOMOTOR

ATAXIA. By Prof. Pitres of Bordeaux. (*Journal de Medicine*).—This disease was described by Charcot in 1866, it is accompanied by lightning pains in the limbs, and spontaneous voluptuous sensations resembling those of coitus. Pitres relates a case of a woman of 48, in which it began with a light gastric disorder followed by erotic sensation of the clitoris. Twice a month, without a physical or psychical provocation she felt a tickling of the clitoris which persisted and increased in intensity for about 15 or 20 minutes, and terminated with a complete erotic spasm and an abundant vulvo-vaginal secretion. This accident occurred both day or night, without any premonition. The erection of the clitoris ceased a short time after the ejaculation, and was not followed by appreciable fatigue.

After a persistence of this condition for eleven years, ataxia developed itself. The clitoric paroxysm disappeared with the advent of the lightning pains in the limbs.

ARTICLE IX.

Department of the Respiratory Organs.

CONDUCTED BY

J. C. MULHALL, M. D., Physician to the Throat and Lung Department St. Louis Medical College Dispensary.

A CASE OF FOREIGN BODY IN AIR PASSAGES WITH NEGATIVE SYMPTOMS. *Austral. Med. Gaz.* September, Dr. Williamson first draws attention to the fact that in the insane it is astonishing what conditions may be discovered in various organs without symptoms; that an insane may suffer from pleurisy or large pleural effusion or pneumonia without a complaint, that a consumptive may give no warning cough. The case in question was one of dementia who was observed to have some slight dyspnœa. A hypertrophied heart was diagnosed, but no pulmonary sign beyond a few scattering râles. Death 48 hours afterwards. Just an hour previous to death he was sitting up in bed abusing a fellow patient. At the autopsy three trouser's buttons and a nail an inch long were found in the right bronchus, many gall stones,

two of them weighing 107½ and 80 grs. respectively and quite a number averaging from 5 to 40 grains were found in the gall bladder. An enormously enlarged heart accounted for death. There had been no cough, no altered voice, no bronchial or laryngeal spasm. It was known that he had a habit of putting all kinds of rubbish into his mouth.

Surely an extraordinary case of loss of reflex excitability in the domain of the pneumogastric.

BACILLUS TUBERCULOSIS, *Lancet.* September. Dr. Sormani of Pavia tested different agents for the destruction of this microbe. Dryness, oxygen, ozone, cod liver oil, putrefaction, alcohol and most disinfectants were ineffectual, and even at 100° C. they only perished after 5 minutes boiling. In doses which the human organism can bear, benzoate and salycilate of soda, sulphate of zinc, carbolic acid, iodide of silver, bromine and camphor do not destroy the bacillus. A more decided action can be attributed to creasote, eucalyptol, carbolic acid pure, the napthols and corrosive sublimate. If consumption be curable with a germicide, the bichloride presents the greatest advantages of any. I have no doubt the best plan would be that pursued in treating syphilis. A tonic course of bichloride, extending over 2 years at least, not omitting of course every possible hygienic consideration.

I have lately employed pure creasote internally and by continuous inhalation, with most encouraging results.

A NEW METHOD OF MAKING HYDROSTATIC TESTS OF THE MITRAL AND TRICUSPID VALVES. *Medical News.* Phil. November. Dr. Arthur N. Meigs. The auricles not the ventricles are opened. A tightly fitting glass tube is passed through the aorta and pulmonary artery respectively, just beyond their valves into the ventricles, and by means of rubber tubing connected with a water spigot. The heart is first cleared of clots, the water being turned on at a fair pressure it can be seen that the mitral and tricuspid valves in a healthy heart approach and make the ventricles completely water tight. During life in addition to mechanical closure there exists the element of muscular force, which contracts the cavity and it might therefore be agreed that this test is not perfect, since this muscular action might have prevented the leakage that is exhibited *post mortem.* Dr. Meigs disproves this quite fairly. It is a commonly accepted fact that there may be mitral

regurgitation without murmur if the heart be very feeble. Dr. Meigs shows that with a feeble water pressure the valves do not close, and on the other hand with a very high pressure first suddenly close and then open slightly. This shows us how much we must take into consideration the force of the hearts action in the consideration of a murmur. With the right ventricle he shows that if the left be empty and the right be filled, it forces the septum to be bowed into the left heart and so distends the walls of the right side that tricuspid regurgitation takes place. An exactly similar condition occurs in life, in, for instance, pulmonary obstruction to the outflow of blood, without tricuspid disease, a proof that the tricuspid is often the safety valve of the heart, since thereby it permits reflux into the systemic veins, relieving the over charged right heart and pulmonary circuit.

THE PATHOLOGY OF BRONCHO PNEUMONIA.—(*Medical News.* Phil. Nov., 15th.) Dr. Francis Delafield. There exists amongst many of us a vague and confused idea concerning the disease most usually spoken of by authors as catarrhal or lobular pneumonia, usually attacking children. This article in every way is by far the clearest exposition of the subject I have ever read and I strongly urge any one, in whose mind there exists any confusion on the subject to read and preserve this masterly exposition. A proper abstract would occupy too much space here.

MODERN METHODS OF TREATING PULMONARY PTHISIS.—(*Med. Times.* Phil.) Dr. Beverley Robinson concludes that there are three real advances in treatment, 1st. Superalimentation by the method of Debove, 2nd. Continuous dry antiseptic inhalation. 3rd. Intra pulmonary injections.

The method of accomplishing the first is described and fully endorsed by Dr. Millard, in the June number, 1884, I think, of the (*N. Y. Medical Journal*). The best inhaler for cold volatile agents is that of Yeo. Leslie, 204 N. 6th, St., St. Louis at my suggestion recently laid in a stock of them. They cost but 25 cts. can be worn all night without discomfort. Creasote (*pure*) has been found most generally useful. I order equal parts spts. chloroform and creasote 10 drops to be placed on the sponge of the inhaler. In a number of cases I have found it to relieve the night cough of both laryngeal and pulmonary consumption, very markedly.

The injections used, consist of 10 drops of dilute Lugol's solution introduced by means of a long hypodermic needle into the softening centre or cavity. The Dr. is not quite sure however of their ultimate value.

CHLORAL TREATMENT OF DIPHTHERIA. According to Dr. Galantin's work on the subject, the dosage should be six grains of chloral and six of chlorate of potash to be given every hour to produce hypnotism; to children two grains of each every hour; to infants ½ grain chloral with two grs. bromide ammonium and two drops chloroform. Dr. G. proposes chloral as a specific, basing his opinion on experience and the anaplastic property of the drug. He gives it even if the temperature be subnormal and the heart feeble.

I presume the benefit is rather to be attributed to the absolute rest of the entire organism which continuous hypnotism affords.

BONE IN THE SUBGLOTTIC REGION. At a meeting of the Clin. Soc., London May, 23 the following instructive case was reported by Dr. Fred Taylor and Mr. Golding Bird. A man, 63, applied for relief from a cough from which he had suffered five months. He did not complain of his throat but some laryngeal stridor being observed, the laryngoscope was used and revealed a foreign body impacted below the cords. There was breathing space on either side of it and the cords could close over it. On being questioned he stated that five months previously he had swallowed a bone, and that being unable to remove it with his fingers, his wife had pushed it down with the handle of a spoon and he supposed it effectually disposed of and had quite forgotten the event, especially as the sore throat following the accident had quite gotten well in a week. Mr. Bird performed laryngotomy and removed a bone ¾ inch long ⅝ broad and ¼ thick. The patient was cured.

What would have been the outcome of such a case in prelaryngoscopic days? Is diagnosis in cases of obscure cough, or of any cough for that matter, complete, without that knowledge of the condition of the upper air passages which is afforded by laryngoscopy and rhinoscopy?

RHINOLITHS. (*Rev. Mens. Laryngol, d' otol. etc*). Schimegelow.

The author reports the case of a man who had suffered sixteen years with a unilateral nasal fetid purulent discharge. Quick cure followed removal. This patient had for several years an interesting symptom, namely: sweating confined to the head and side of the face affected, which ceased four years before removal of the rhinolith. Dr. S. explains this by saying that the action was a reflex vaso motor one due to pressure on trigeminus filaments by the foreign body, but that the pressure having finally destroyed these filaments, reflex action of course ceased.

It is astonishing how frequently the fact that a foreign body may be the source of a purulent nasal discharge is overlooked, or, on the other hand, the investigation is so careless that it is not found. I have had several experiences where patients had been treated for everything but a foreign body. I will mention one. A child had been seen by six physician at various times and not a single one had suggested or properly examined for a foreign body. This child had suffered a purulent unilateral discharge for five years. I found in the lower meatus a body which on removal proved to be a piece of cork encrusted with calcareous matter. The reason, I think, that they are overlooked is as follows. The body becomes fixed in the lower meatus. By pressure it produces atrophy of the surrounding structures and makes a pocket for itself. The mucous membrane near, but not in contact with it, gains and helps to conceal it. In this position douches do not dislodge it and it is easily overlooked, especially as most patients throw the head upward and backward when the nares are investigated from in front, whilst the very opposite position is proper for seeing the lower meatus. A unilateral purulent nasal discharge should always suggest a foreign body and each meatus should be searched anteriorly and posteriorly with the eye and probe.

GLOSSO-LABIAL PARALYSIS. (*Med. Times*: Nov. Phil.)—The editor maintains, with perfect justice, that in as much as it is now known that this is not a disease *sui generis*, but merely a symptom of a spinal cord disease, polio mielitis, which, attacking any portion of the cord, produces muscular atrophy corresponding to the part diseased, therefore the name should be stricken from the list of diseases. Furthermore, such paralysis may be due to gross cerebral lesions, the medulla being healthy.

GOITRE. (*Bull. de l' acad. Roq de Med. de Belgique.*) Dr. Bauwens of Alost. His conclusions are:

1. Goitre may be sporadic, a local disease without diathetic cause; *e. g.* accouchement, mechanical causes.

2. It may depend on a blood change; *e. g.* scrofula.

3. Is a constituent part of the triad of signs of exopthalmic goitre.

4. It is endemic.

5. It may be everywhere, epidemic.

Iodine internally cures the endemic non-degenerated goitre and is often successful in the soft recent goitres of the scrofulous. It is in other forms useless; ergotine, internally, is more generally useful.

The indications for the parenchymatous injection of iodine and ergotine, are as follows:

	TINCTURE IODINE.	ERGOTINE (D' YVON.)
a.	Cystic goitre; cure.	Idem.
b.	Soft, diffuse, recent cure sometimes.	Success certain.
c.	Vascular-sanguineous, dangerous & useless.	Success certain. Its physiological action guarantees success.
d.	Exopthalmic; dangerous.	
e.	Degenerated; injurious.	May succeed.
f.	Fibrous—useless	May succeed.
g.	Retro sternal; dangerous.	If parenchymatous, should be tried.
h.	Cancerous—useless.	Useless.

In class *f* surely the author is mistaken. I have treated and seen treated many fibrous goitres with interstitial injections of iodine in greater or less strength, seldom without benefit and often with a practical cure.

EXOPHTHALMIC GOITRE. (*Berlin klin. Wochenschr.*) Rehn. Four cases where exopthalmos, dyspnœa, pulse rate 160, followed development of a goitre, in which all symptoms disappeared after extirpation of the goitre.

The same author reports a case of goitre which, by recurrent nerve pressure, caused spasm of the glottis, wherein cure followed extirpation.

GOITRE. Beilage 3. (*Centralbl. für Chir.*) Credé. Pressure had produced recurrent nerve paralysis of one side, not relieved by extirpation. The author lays great stress in his recommendation that the arteries should be tied just before they enter the gland, in order to avoid destroying other branches whose destruction

might interfere with the nutrition of the parts they supply, such as the trachea and oesophagus.

GOITRE. (*Med. & Surg. S.*) Bordeaux, April—Demon. Pressure had produced bilateral abductor paralysis in larynx—extirpation of all but the retro-sternal portion—followed by left sided pneumonia, which later developed into phthisis.

RIGHT SIDE GOITRE WITH RIGHT SIDE EXOPTHALMOS. (*Surgical Society*, Paris.) Dr. Berger reported such a case. Richelot advised extirpation. Tillaux had just such a case, where after extirpation of the goitre, the exopthalmos disappeared in eight days.

GOITRE. (*Austral. Med. Jour.* February.) Dr. Fitzgerald. Injections and setons had been unsuccessful. Extirpation and cure. Dr. Barker reported three cases of extirpation. In two of the cases death followed at 12 and 18 months respectively with symptoms of anæmia and debility. Dr. Girdlestone mentioned a case of cystic goitre treated after the MacKenzie method with injection of per chloride of iron. The anterior thinned wall of the trachea was wounded, and the patient died. Dr. Allen had a case of cystic goitre where the desired suppuration followed the injection of iron, but it perforated and burst into the trachea with immediate suffocation.

It is interesting to note in connection with Dr. Barker's cases that they died with some of the symptoms that the animals died of in which Zesas (*Wein. Med. Wochens.* Aug. 16, 1884) extirpated the thyroid, and who therefore pronounced the operation physiologically unjustifiable.

EXTIRPATION OF GOITRE. (*Arch. f. klin. Chir.* No 23.) Baumgärtner reports 11 such cases. In four the symptoms of Kochers cachexia strumi priva followed. There were signs more or less pronounced of paralysis of the laryngeal abductors, requiring tracheotomy. Dr. B. does not think that this was owing to any wound of the recurrents, since it is easy enough to avoid them and remarks that the recurrent may be primarily or secondarily affected, in as much as the fibres of the sympathetic may be first diseased and by means of the upper cervical ganglion the morbid process may be carried on to the recurrents. Kochers ascribes the condition which sometimes follows extirpation of goitre,

which he calls *cachexia strumi priva*, to stenosis of the air passages through atrophy of the trachea, and this latter condition to be the result of destruction of the small vessels supplying it. He therefore advises tying the thyroids as near their entrance into the gland as possible. It seems to me a possible explanation of the laryngeal disasters following extirpation of goitre, to attribute them to irritation and strangulation of the recurrents by the cicatricial process ensuing.

DIPHTHERIA—*Gaz: Hebdom: de Med. et de Chirur.* Mercury is again being extensively used in membranous throat affections. Dr. Coestu of France has treated 298 cases of diphtheria with calomel. He gave two doses daily of calomel, from 8 to 9 grs. at a time with but 12 deaths.

When an absolutely certain method of diagnosis of this disease is at hand, reports of its therapeutics will command more respect.

ARTICLE X.

Department of Dermatology and Syphilis.

CONDUCTED BY

A. H. OHMANN-DUMESNIL, A.M., M.D., Professor of Dermatology and Syphilis, St. Louis College of Physicians and Surgeons, of St. Louis.

INFECTIOUS ERYTHEMA CIRCINATUM.—M. Dubreuil has reported a case of the above to the Société Clinique of Paris (*France Médicale*) the patient being a girl aged 16. She had an erysipelas and two days after its disappearance she had the eruption which occupied the trunk and internal aspect of the thighs. The remains of a bulla, on the left index, could be seen. The lesions varied from a simple papule of split-pea size to large irregular rings larger than the palm of the hand. The contour is irregular, being sinuous and as if serrated. A slight amount of itching is present. The eruption disappeared from the trunk and invaded

the extremities, the spots coalescing. In eleven days the eruption had disappeared, leaving a pigumentation that was scarcely visible. After this there were several outbreaks lasting but a short time and in less than a month the patient was discharged. During the attack she was affected with pulmonary congestion, and the author regards this as a form to be included with the erythemas due to febrile disorders such as erythema multiforme and erythema nodosum..

URTICARIA A FRIGORE.—Dr. de Argaez reported to the same Society (*France Médicale*) a case of urticaria involving the whole body in a woman aged 47. On inquiring into the possible cause no indiscretion in diet could be found. No fever existed. It was found, however, that she had had attacks of rheumatism and had suffered from acid dyspepsia. On the morning of the day that the eruption appeared she had been very active, had perspired freely and then sat in a draught. There could be no doubt as to the cause. She was ordered alkalies internally and locally. A bottle of Vichy daily and daily baths containing bicarbonate of soda. Three days later she was entirely free of the eruption. As to the efficacy of the alkali externally there is some doubt as the prolonged bath had perhaps as much influence in allaying the peripheral irritation.

TRAUMATIC ECZEMATOUS DERMATITIS OF EARS OF INFANTS.—Dr. Chas. H. Burnett contributes an interesting article, for general practitioners, on this subject to the *Archives of Pediatrics*. He speaks very pertinently of the injury inflicted by mothers and nurses who are over solicitous to keep infants' ears "clean," by removing the cerumen and irritating the canal and thus giving rise to an eczematous dermatitis. Besides this, when the affection spreads to the auricle they are again moved by this spirit of cleanliness (?) to carefully wash off the exudation, remove the crusts and thus further abrade the skin and intensify the condition. This condition, of course, must not be confounded with the same trouble caused by irritating and acrid discharges caused by some internal trouble, such as suppuration of the middle ear. The treatment, of course, is purely local and one designed to allay the irritation ; the main purpose in view being to prevent unnecessary meddling with the parts.

TREATMENT OF LUPUS.—Dr. Ernest Schwimmer contributes to the *Wiener Med. Woch.* a method which combines the pyrogallic acid and mercurial applications. After removing scales, etc., from the surface he applies a 10 *per cent.* pyrogallic acid salve two to three times a day for from four to seven days. He then applies the emplastrum hydrargyri to the suppurating surface for a whole day. The object of this latter application is to cause the absorption of the tubercles and cell infiltration and bring about the formation of a smooth cicatrix. Should tubercles show themselves, during cicatrization, the pyrogallic salve is reapplied for three or four days and then the other. A third application is only necessary where the lupus is very indurated and indolent. This method he claims is successful especially in old cases and relapses are very infrequent.

DERMATITIS HERPETIFORMIS.—Dr. Louis A. Duhring has for a number of years been observing a disease described under various names and has finally given it a name. We have no doubt whatever that he is right and we can not but promise him the heartfelt thanks of the profession for simplifying the nomenclature of dermatology. In a preliminary note on the relation of dermatitis herpetiformis to herpes gestationis and other similar forms of disease, in the *Medical News*, he calls attention to the marked similarity of the affection he has described to herpes gestationis, impetigo herpetiformis, herpes circinatus bullosus (Wilson), pemphigus pruriginosus (Hardy), some cases of hydroa and a large number of isolated cases described by various authors. Besides this, some cases of pemphigus, especially of "pemphigus pruriginosus," might be more properly regarded as cases of the above. To more properly appreciate the vast improvement that this would make, those interested in the subject should read Dr. Duhring's elaborate articles on this disease and then compare his description with that of the various authors who have described different diseases occurring apparently as isolated cases. The resemblance will then become very apparent.

THE VIRULENCE OF THE CHANCROIDAL BUBO.—M. I. Strauss contributes a very interesting article on the above subject to *La France Médicale* and, if his conclusions are correct, he will produce quite a revolution in regard to the inoculability of the pus of the chancroidal bubo. He regards as eminently unsatisfac-

tory the opinion that a chancroid may be accompanied by a bubo which may contain pus that is non-inoculable or that in other cases that this pus may inoculate. He states that he has taken the pus from the surface as well as from deeper parts of the bubo and that it has always proven sterile. He further states that all former experiments would have been equally futile had the experimenters take care not to expose the wound to the secretions or detritus of the chancroid transported by the hand, shirt or dressings. He contends further that auto-inoculation with this pus would be less frequent if practiced, not upon the thigh, but upon remote parts. Anatomical examination of the pus and of the walls of the bubo, the results of culture and experiments, justify the author in concluding that there are not two varieties of bubo accompanying the soft chancre. There is but one and it is not virulent. It only becomes such by secondary inoculation after being opened.

EXFOLIATIVE DERMATITIS IN A SYPHILITIC.—M. Poupon records in *La France Médicale* an interesting case. The patient, a woman aged 35, although denying it was found to be suffering from syphilis. Some time after the skin was observed to become red, tense and accompanied by a general pruritus. Scales soon formed and separated abundantly, being somewhat small on the scalp and larger on the chest. The scales were large, abundant, attached at the centre and alopecia marked. The nails of the hands and feet where considerably involved. The trouble lasted about two months and a half. The question that arose was, whether the syphilis had any causative influence in the production of the exfoliative dermatitis. The only objection to make to the proposition is that specific treatment which was very evergetic for a certain time, did not seem to bring about any results for a period of two months and a half. Besides this, the patient was saturated with mercury during the eruption, as a few days previously she was affected with mercurial stomatitis. On this account the author, very justly, has hesitated to pronounce the cause of the dermatitis to be syphilis.

MURIATE OF COCAINE IN VENEREAL SURGERY.—Dr. S. Edwin Michael gives the results of his experience, to the *Maryland Medical Journal*, with muriate of cocaine as a local anæsthetic in venereal surgery. He record five cases in which he excised

venereal warts, performed circumcision, opened buboes, etc., with complete success, no pain whatever being felt. A few drops of a 4 *per cent.* solution applied every five minutes a few times seemed to produce complete analgesia of the tissues cut. The experiments made seem to show that the local anæsthetic powers of cocaine may be made use of wherever we need surface anæsthesia and have an absorbent surface. We may state, in addition, that the skin seems to have considerable absorptive power in respect to cocaine, as experiments made in this respect have shown that analgesia and anæsthesia both have been produced by spraying it upon the surface.

SYPHILITIC INTERSTITIAL KERATITIS.—Dr. Chas. A. Oliver reports an interesting case of this disease in the same journal. The patient was a stunted girl of 10, whose characteristics are those of hereditary syphilis although not marked. The treatment consisted of inunctions of one-drachm masses of mercurial ointment, twice daily, together with neutral sulphate of atropia collyria. For over a period of six weeks, the child was probably absorbing sixty grains of the drug daily, without any evidence of detrimental results. This was probably due to the precautions taken in the administration of the drug and the hygienic rules followed. The fact of the rapid improvment of the child and various other factors confirmed the diagnosis of a hereditary syphilitic type of disease.

A SPECIFIC BACILLUS OF SYPHILIS.—Dr. Sigmund Lustgarten contributes an article to the *Wiener Med. Wochenschr.* in which he states, that he has examined sections of the initial sererosis and of gummous tubercles and found in them bacilli peculiar to syphilis. The bacilli present the appearance of straight or slightly curved rods of about the same size and appearance of those of tubercle bacilli. They are always solitary, however, or in small groups and enclosed in lymphatic cells. The method of staining, which the author proposes to speak of in some future communications, he claims permits him to distinguish these bacilli not only from those of tubercle and leprosy but also from all other known bacteria. He has not observed any cocci, so far.

ARTICLE XI.

Department of Microscopy.

CONDUCTED BY

FRANK L. JAMES Ph. D., M. D., President St. Louis Society of Microscopists, of St. Louis.

The *Berliner Klinische Wochenschrift*, publishes the following; Dr. S. Lustgarden has communicated to No. 47 of the Vienna Medical Weekly a statement which cannot fail to attract considerable attention. He says that he has found in two initial syphilitic lesions and in one gummatous knot, by staining methods of his own, straight or slightly curved rods which have identically the same size and appearance as the bacillus of tubercle. They are found singly or in little groups shut up in somewhat swollen lymphoid cells. The same light spots, which Koch pronounces in the tubercle bacillus to be the formation of spores, are recognizable in these rods. Further investigation of this interesting discovery is being conducted by Weigert in Leipzig.

THE COMMA BACILLUS AND CHOLERA.—Lovers of fair play in matters scientific and especially those pertaining to microscopy, are never so well entertained as when reading the trenchant monthly review with which Dr. Pelletan always introduces the *Journal de Micrographie*. Knowing no country nor creed in questions pertaining to pure science, he blames or defends Frenchman or German alike as the case may be, criticizing with perfect impartiality the views of Koch and of Pasteur, Klein and Bochefontaine. The November number of the JOURNAL, which is just to hand, is no exception to the rule. Commencing with a notice of the discussion now progressing between Finckler and Prior on the one hand and Koch on the other, as to the identity of the bacillus of cholera nostras with the specific cholera bacillus of Koch, he says; "It is impossible to open a medical journal without finding the question of the comma bacillus discussed and rediscussed—agitated in a hundred

ways. It makes me tired, absolutely, (*pour nous c'est absolument fatigant*) because from a medical point of view this discussion is sterile." "It will be here readily understood" says the doctor, "that we cannot undertake in this review to give an analysis of all the published labors in this direction. It is as much as we can do to cite the principal works and their conclusions (though we *do* publish in this number a sufficiently long *memoire* from our distinguished confrere of Brussels, Dr. Van Ermengen, who has made an excellent study of the comma bacillus, with the view of differentiating it from other similarly shaped bacilli which have been more or less recently discovered.) Thus Mr. T. R. Lewis, whose works on certain parasites of the blood we analysed some years ago, has recently found in the saliva of a man in health and in the tartar on his teeth, a bacillus which has the curved form of Koch's comma bacillus (See *London Lancet*, Sept. 20th, 1884.). If this organism is the same as the last named it is plain that the latter is at once robbed of much of its importance. But the bacteriologues immediately set themselves to work and it appears from them that the bacillus obtained from saliva and teeth are "a little longer and a little less obtuse at the ends and more inflated at the centre than the cholera comma bacillus." They have rather the form of a crescent moon, while the latter, which is almost of the same thickness throughout, is like a slightly curved sausage. On another hand we have Messieurs Finkler and Prior of Magdebourg, describing a curved bacillus found in the dejections of patients suffering from cholera, not the Asiatic sort, but cholera nostras. They declare it to be the identical cholerigenic bacillus of Koch. They sent their preparations to the latter at Berlin, and he finds that these bacilli (F & P's brand') do not vegetate in culture fluids in the same manner as do the specific comma bacilli. Koch delivers himself on the subject in a long communication to the *Medizinische Wochenschrift*, which he concludes in these words:

"The result of these numerous researches, like the fruitless experiments of those who imagine that they have found elsewhere than in cholera subjects bacteria similar to the cholera bacillus, and whose effects are evanescent, only confirm what I have said as to the connection (*rapport*) which exists between the choleraic bacillus and cholera. The comma bacillus is a specific bacterium and pertains exclusively to cholera."

Koch, in this article, very justly animadverts upon the large class not only of physicians but of enthusiastic laity who launch themselves into "investigation" of microbes without a single qualification for the work. Naturally enough these people find what they are looking for, mistaking ravelings (*bouts de fil*) and threads for bacilli, and then they build on their discoveries theories which are sometimes sustained by government patronage, and even set grave academicians by the ears. (Like the 'discoveries' of Dr. Rollin R. Gregg, of Buffalo, N. Y. who made himself notorious and ridiculous a year or so ago by his 'controversion' the of Germ Theory, and whose case was handled under the head of 'KOCH CRUSHERS' in the Medical and Surgical Journal at the time).

Apropos of preparations which had been sent to him by various individuals who claimed that they exhibited the comma bacillus, Koch writes "neither I nor other microscopists were able to find in them the least trace of anything which could be taken for a bacillus!" which goes to show that every body cannot go to Corinth and we must be on our guard against mistaking a lightning-bug for a lantern."

Switching off from the subject momentarily, Dr. Pelletan proceeds to pay his devoirs to the yellow fever microbe, but soon returns to another phase of the comma cholera bacillus question—the foolhardy experiment of Dr. Bochefontaine, to which allusion has already been made in this department of the JOURNAL. It was, as our readers will probally recollect, the swallowing of a lot of pills made of the fluid excrementitious dejecta of a woman in the clinic of Dr. Vulpian, who had died of cholera. This fluid "contained a prodigious number of vibrionidae of all kinds and descriptons, among which, however, predominated in point of numbers, a kind of very short bacterium which crowded and whirled about the field of the microscope with a rapidity of motion which made it difficult for the eye to follow them. In the midst of this bacteridial mob one could easily recognize the 'comma' and 'circumflex accent' bacillus. This fluid, injected under the skin of several guinea pigs in the laboratory killed them in a few hours. M. Bochefontaine, however, beyond "a little fever, nausea, convulsive movement of the legs, dysuria, loss of appetite and constipation, experienced no bad effect and in 24 hours he was all right again. Five days later, and when entirely recovered from his disgusting and nauseous dose, he found that

his dejecta contained quantities of bacteria somewhat larger than ordinary, and generally immobile, and at the same time comma bacilli in even greater numbers and extremely lively."

"All of which goes to prove," says Dr. Pelletan, "that the ingestion of the matter of choleraic stools, full of bacilli, including comma bacillus and other kinds, may cause some perturbation of the system and nausea—but not cholera."

"But the Parisians who laugh at every thing, even the most grave and serious, immediately found a way of popularizing the name of Bochefontaine—the man who had taken this transcendent means to restore their confidence in the midst of an epidemic."

"It will be remembered that when, some months ago, M. Pasteur refrained from going to Toulon, where his duty to humanity and to France alike demanded his presence, a notable caricature appeared at which the Parisians enjoyed a hearty laugh—a caricature graphically illustrating the extreme circumspection of the celebrated *Chatelain de Villeneuve-l'Etang* (Pasteur). As soon as the experiment with these famous pills became known another caricature made its appearance, at which everybody laughed also—and surely M. Bochefontaine had a better right to laugh than any and everybody else. The cartoon represents this "*medecin epatant*" as squatted beneath a sheltering wall, his trousers down, and while he is taking into his mouth a mess all smoking hot, he is returning *per viam naturalem* a bunch of violets."

"Now if you believe that this naturalistic caricature which celebrates the happy temerety of Dr. Bochefontaine in a manner as drole as it is naughty" continues Dr. Pelletan—(American readers would say as ridiculous as it is filthy) "was of no service, you must undeceive yourselves. I heard a workman who was standing before one these colored cartoons remark "Ah! cheese it about cholera! If one of those doctor fellows can eat the excrement of a choleraic patient I think we've got nothing to fear!" —"*That* is how M. Bochfontaine has, aside from the scientific bearings of his experience, rendered a great public service which has been popularized by the caricature. He "reassured the populace" far more effectively than all the hygienic committees, councils of salubrity, boards of health and other official commissions put together.

And now begging pardon of our readers for this diversion

into the domain of M. Zola, I will refer to a few more theories concerning cholera (and still they increase at the rate of a dozen a minute) the most notable of which is that of Dr. Maurin who refers the cholera to a micrococcus, and that of Prof. Hallier of Jena, who attributes the true Asiatic cholera to the spores of the *urocystis oryzae*, a fungus of rice; the cholera nostras to those of *tilletia caries*, a fungus of wheat, and choleraic diarrhœa to *pencillium crustaceum*.

THE GERM THEORY.—In concluding his review Dr. Pelletan closes with the following not very optimistic view of the present status of the "*theorie microbienne.*" "It has produced and will yet produce a vast deal of research; it has caused and will yet cause an immense amount of nonsense; but it has created an entirely new department or branch of biology. The life history of these minute organisms, their diverse modes of development, their growth in various media and particularly upon solid matters are excessively interesting, curious and instructive. Looked at from this point of view, I repeat the microbian theory has been of vast service to the science of biology—but as to medicine and its sublime end and aim, the healing of the sick, up to the present time it has been absolutely without result, and it will probably remain so, for a long time to come."

THE YELLOW-FEVER MICROBE.—Without going so far as Dr. Pelletan as to the services rendered to the science of medicine by what he calls the 'microbian theory', I often congratulate myself and my chosen profession on the fact that few of the laity get hold of, and still fewer read the great mass of matter which passes current in our medical journals as scientific research. In no other department of human knowledge are theories built upon foundations so slight, or positive deductions drawn from data so incomplete and untrustworthy as in ours. I will illustrate my meaning by supposing a parallel case in what might be called another department of prophylactics.

An electrical engineer invents a new device for protecting houses from destruction by lightning. He chooses five hundred houses out of a collection of two hundred and fifty thousand, all more or less alike, and he places on his chosen five hundred his new protector. At the end of a year he finds that five of his protected establishments have been totally destroyed by lightning. Now, as to whether this is or is not a good showing for the new invention depends altogether upon the showing made by the

249,500 houses which were not protected. If it can be shown, for instance, that while only one *per cent.* of the protected houses were destroyed, ten times, or three times, or even double that amount of unprotected houses were stricken, we will be ready to accord to the inventor the honor and profit due him. But if he should appear before the community with an elaborate report describing his invention even to the minutest particulars, telling how each piece was tempered and colored and mounted, giving the thermometric, barometric and hygrometric conditions of the atmosphere while the rods were being put on, and should finally wind up with a peroration somewhat as follows. "Only one *per cent.* of all the houses thus protected were injured by the electric fluid—a result which must be hailed as the beginning of a new era in lightening rods. Henceforth mankind have a certain and sure protection against the bolts of Jupiter Tonans etc., etc.—"but failing to say a word about the unprotected homes—of what particular value would such a report be?

Yet this is exactly the status of the report of Don Domingo Freire on his yellow fever microbe vaccination, as reported to the *Societe de Biologie* by M. Rebourgeon.

Granted, for the sake of argument, that Dr. Freire has discovered a specific microbe of yellew-fever (which he has christened *micrococcus xanthogenius*)—though it is claimed by Corneil and other observers to whom he has sent his drawings, that the supposed microbes are filiments of lint, fibres of cotton etc., the fact that "only five persons out of five hundred who were vaccinated with the cultivation of the yellow fever microbe died with the dread disease," and upon which so much stress is placed by M. Rebourgeon, M. Bouley and others, amounts to absolutely nothing unless we know exactly the proportion of deaths among the 250,000 people living in the same locality and subject to the same influences who were not vaccinated. And even then there are so many other things to be taken into consideration that we would want not 500, but ten times five hundred vaccinations upon which to base a declaration like that, for instance, of M. Bouley before the *Societe de Biologie*. "Whatever may be the nature of the microbe" says this savant "there is no debating or denying as a fact of the highest importance, that several hundred people have thus been saved from a terrible malady by the discovery of a new vaccination."

They were "saved from the malady" simply because they did

not take it, just as the Dutchman was saved from drowning in a certain steamboat accident—simply because he "didn't go in the d—d boat."

The French have lately become great ridiculers of every pretention of Americans to scientific attainments. Nothing in the debates of any of our back country medical societies is half so idiotically ridiculous as much of the matter reported in the various *societes* of Paris.

Proceedings of Medical Societies.

ARTICLE XII.

ST. LOUIS MEDICAL SOCIETY.

Taken by the JOURNAL'S Stenographic Reporter.
Editorially Revised and Condensed.

SATURDAY, Dec. 6th, 1884.

DR. DUDLEY, President, in the Chair.

DR. MEISENBACH presented a pathological specimen exhibiting waxy or amyloid degeneration of the placenta extruded by a young married woman, the mother of two healthy children, at the fifth or sixth month. Premonitory labor appearing, she was given morphine 1-6 grains with quinine and tannic acid. Returning after a short interval, active labor was in progress, the pains being regular. The membranes unusually dense were punctured with a pin which gave exit to decomposed amniotic fluid, indicating death of the fetus sometime previously. The placenta came away with a lurch and thus excited a suspicion of some unusual condition which was verified upon inspection. It presented upon its external surface yellowish waxy points. Its uterine surface remarkably thickened and exhibited amyloid degeneration. The funis, attached to the margin, was partially adherent to the membrane which were exceedingly thick. At the site of attachment of the cord there was a large clot indicating that separation from the uterine wall had commenced at that point. No syphilitic taint nor hereditary cachexia characterized the patient. The degenerations found in this placenta are most frequently the

cause of abortion, even when, without microscopic examination, no evidence of pathological transformation is discernable.

Attention is called to the fact that morphine in the case recited, as in similar uterine conditions, does not retard action but actually increases it.

DR. DEAN had noted the same fact and often resorted to its administration, believing that it afforded rest and thus enables the parturient to gather strength and expedite delivery

DR. HURT spoke of "false pains" which could be tested by the influence of opium and its preparations. If the labor is not really in progress the narcotic will quiet action but if it is, the pains will become regular and more forceful. Again, in cases of rigid os the effect of morphine is to relax the circular fibres at the mouth, thus relieving the impediment to the process. The labor may be slightly impeded by the immediate effect of the drug but ultimately through its agency it is expedited.

DR. PREWITT attributed the premature delivery to the presence of a syphilitic taint. He thought this diagnosis would be verified if the facts could be obtained, this, however, is frequently impossible owing to deception on the part of the patient.

Papillomatous Growth in the Larynx.

DR. PREWITT presented for examination and discussion a papillomatous growth which he had removed from a child 2 1-2 years of age. The patient troubled with dyspnœa, displayed no evidences of pulmonary disease, hence the difficult respiration, the sinking in of the chest-walls as well as the appearance of the growth pointed to obstruction of larynx or trachea. The degree of elasticity displayed by the chest excelled everything before witnessed, at each expiration the sternum seemed to recede to the spinal column. The dyspnœa was congenital, slight at first but gradually increasing in difficulty till suffocation was threatened. Laryngoscopic examination by Dr. Todd confirmed the diagnosis, and tracheotomy was immediately done to prevent imminent asphyxia. The relief was marked and the patient rendered comfortable. Dr. Todd made diligent efforts to reach the laryngeal growth through the mouth but failed owing to the well understood restlessness and obduracy of a child. The patient returned for operative interference and on Wednesday last thyrotomy was performed. The head was placed pendant to facillitate escape of blood through the mouth and nostrils and only the inner

of the tracheotomy tubes was left *in citu*, whereby the impediment of the flange on the outer tube was obviated. Dissecting to that organ the larynx was divided in the median line revealing its box absolutely crammed with papillomatous growth which was removed by picking it out, piece by piece. Through the vocal cords were covered with the growth the median incision left them undisturbed and upon being uncovered they appeared red and vascular. A twenty grain solution of Arg. Nit. Crys. was applied though it might have been better to use something more powerfully escharotic to prevent the recurrence of the growth. The laryngeal incision was closed with catgut ligatures and the child has done very well. This is, perhaps, the most youthful patient upon whom thyrotomy has been performed for the removal of growths in the larynx. In answer to a querry of Dr. Williams, a favorable prognosis was expressed, though it was feared that the growths might return.

DR. POLLAK asked if treatment by electrolysis would not have been applicable, to which Dr. Prewitt replied, possibly: and enquired whether it should have been applied after the operation.

Dr. Pollak would have made the preliminary incisions and then introduced the small wire instrument and removed the growths, to which proposition Dr. Prewitt demurred, seeing no advantage in this method of removal over the picking process practiced. In reply to Dr. Rumbold the statement was made that the tumors were both below and above the vocal cords and extended into the cricoid and upper portion of the thyroid cartilages. The larger piece of the growth exhibited, was actually pushed into the mouth. Anæsthesia was induced by chloroform given through the tracheal tubes.

DR. MULHALL had seen this case prior to Dr. Prewitt's examination and, because laryngeal growths in children were generally papillomatous, he had diagnosticated that condition and recommended tracheotomy as a precursory measure, which was declined with thanks. His intention was after tracheotomizing to remove the growths without thyrotomy as it is rather fatal; not so much to the patient as to his voice, which is apt to follow division of the thyroid cartilage and inaccuracy of coaptation afterward, which, from this or some other inexplicable reason, gives rise to a hoarse uneven voice. The mortality is at least 40 *per cent.* and generally dependant upon pneumonia. To avoid the dangers and disabillities attendant upon thyrotomy, he had

intended to remove the growths with forceps or else to employ the method suggested by Voltilene of Brislau by introducing a dry sponge into the larynx and by friction rub off the papillomatous growth. They frequently permanently disappear under this treatment. He would have pursued this course because after tracheotomy no necessity for prompt interference was demanded as the urgent dyspnœa had disappeared and thyrotomy could have been made, with propriety, a *dernier resort*. The application of Arg. Nit. Crys. in twenty gr. solution will not prevent recurrence, it should have been applied in the solid form, though for himself, he would have used galvano caustic.

In reply to Dr. Prewitt who suggested that injury to the vocal cords might result from such application, Dr. Mulhall thought that a superficial touching with the galvano caustic would insure the total destruction of the growth without injury to the cords.

DR. PREWITT said that Dr. Mulhall's remarks conveyed an of idea of inconsistancy. Voltilene, he says, simply rubs these growths and they disappear, and if this effect is so readily induced why should they recur? To him it seemed rather hazardous to attempt the use of the galvano cautery in the larynx. It would require an extremely delicate touch to avoid injuring the vocal cords.

DR. MULHALL made light of the dangers implied and declared that the galvano caustic could be used on a space no larger than a pin's head without the operator possessing any particular expertness. There would be no necessity of wiping with it, the whole surface of the cords.

DR. PREWITT averred that otherwise nothing would have been accomplished as the tumors were diffused.

DR. MULHALL referred to the statement of Voltilene that these growths removed by the galvano caustic may never recur or they may do so even after severe operations. Warts on the hand frequently disappear after surface destruction and the same result may sometimes be obtained when their *locale* is the larynx. At any rate the mild treatment should precede the radical operation.

DR. DEAN spoke of the erroneous view formerly entertained concerning papillomatous growths. The little tumors do not grow into the epidermis but on the contrary they are imbedded between the epithelium and basal tissue, and as the growth in-

creases it checks the circulation and destroys the fibrous connection.

Cancer of the Rectum.

DR. COLES reported a case of extirpation of the rectum for cancer.

DR. DEAN called attention to the delay of most patients thus afflicted in applying for treatment, till too late for successful operative interference.

DR. PREWITT emphasizing Dr. Dean's statement said, that cancer located in the rectum was of low malignency, and when early and completely extirpated it was not likely to redevelope. When neglected till the disease has extended so far up the bowel as to be beyond the surgeons reach, the sole remaining resort for comfort is left lumbar colotomy, a comparatively safe proceedure, which prevents the continued passage of fecal matter over the diseased surfaces with irritating effect and also by arresting the effort at defecation and straining of tissue obviates what otherwise is sure to result, the establishment of ulceration above the point of obstruction. As in stricture in any of the mucous lined canals, sooner or later ulceration is certain to occur, so in stricture of the bowel it may safely be anticipated and once established is liable to produce fistulous tracts which may open into the peritoneum with fatal result. In every case, therefore, where delay, or the location of the diseased structure forbids extirpation, life may be prolonged and great comfort obtained by the preformance of colotomy.

DR. MUDD enquired of Dr. Coles whether he had stated that the growth extended to within a quarter of an inch of the integument, and being answered affirmatively remarked that the operation of extirpation is beneficial even where partial removal only is practicable. Improvement is obtainable in cases by curetting or by rubbing off portions of the growth and in some instances after removing portions of diseased tissue by scraping away portions that cannot be removed entirely. Where the disease extends as close to the anus as in this case it is the experience of operators that it is not safe to leave the anal tissues. It would be instructive to learn the future of the case, as to whether the growth recure and if so its point of onset,—above in the bowel or in the cutaneous surface. It would have been safer to have removed the anus, notwithstanding the discomfort sure to

follow loss of the sphincter. It is remarkable in these extirpations that septic conditions do not frequently follow. After removing from two to five inches of the rectum and packing the hiatus for from 12 to 48 hours with antiseptic sponges or compresses, their removal may be followed by alvine evacuations passing over the raw surfaces, with the production of but slight irritation, inflammation or absorption, nor does this flow discomfort the patient. Three years had elapsed since he had removed a scirrhous growth in a woman, anæmic and attenuated from the disease which was accompanied with ulceration and profuse puriform rectal and vaginal discharge. Bed-ridden for a year she was a pitiable object. In this case the greater portion of the tissues of the ischio-rectal fossa upon either side with the recto-vaginal septum to the *cul-de-sac* of Douglass and about one half inch of the circumference of the vagina were removed, leaving a great gap which it was not attempted to close nor was any effort made to bring down and secure the gut. But little constitutional disturbance ensued, she was more comfortable than for months proceeding, while the wound kindly healed. Though the growth redeveloped she lived perhaps for a year and a half. Undoubtedly it is justifiable to make these operations even though certain of the recurrence of the growth, as by so doing one can mitigate suffering and prolong life. Colotomy should be resorted to when the conditions are desperate. When the difficulties apprehended in extirpation are too formidable and when the tormina and tenesmus attending defication are unbearable. It should not be done for the purpose of relieving irritation by premiting the passage of fecal matter over the diseased surface, nor with the hope or belief that it will retard the rapidity of the growth, and it is well to bear in mind the discomfort and the feeling of disgust consequent upon the presence of an artificial anus in the lumbar region.

DR. DEAN, though formerly differently impressed, was now in accord with the views just expressed. Continued observation had convinced him that the doctrine at one time prevalent that one cause of the rapid progress of the growth was irritation from the passage of fecal matter, is untenable. Great stress should be laid upon the danger of ulceration and the breaking down process above the stricture.

DR. PREWITT though the discomforts attributed to colotomy greatly exaggerated, wearing a pad and thus controlling the fecal

discharge relieved the patient of much inconvenience. It is a pathological law that where there is obstruction in a mucous lined canal, there supervenes, ulceration above it. This can be obviated by preventing tormina and tenesmus with the irritation necessarily connected therewith by performing colotomy, thus not only anticipating the establishment of ulcer but preventing the formation of fistulæ and even perforation of the bowel with fatal peritonitis. The operation is not very dangerous, it is almost always successful, the danger at the time being in wounding the peritoneum. This accident can be obviated by inflating the bowel from below. The operation of colotomy will delay the progress of the disease.

DR. MUDD. The pain and discomfort of a rectal tumor is largely dependant upon its location, if it is some distance above the anus it is not nearly so painful as when the anus itself and the muco-anal junction are involved. That ulceration may and does occur above the stricture is certain, but in the limited number of cases he had seen it had not been observed. Certainly its establishment should be accompanied by diagnostic signs and when determined it would warrant colotomy. Pathological specimens illustrating rectal stricture in his possession, did not exhibit this phenomenon and the reports of others allude to the parts immediately above the obstruction as presenting a normal appearance. Again, in extirpation it would be impossible to procure union between the upper and lower sufaces after removal of the diseased interval if the superior surfaces were ulcerated.

Laryngeal Tuberculosis.

DR. A. GREEN, referring to appearances presented in Dr. Wight's case enquired of Dr. Mulhall if the epiglottic fold or the retro-pharyngeal glands were enlarged and as to any other pathological condition of the larynx. He thought it peculiar that there should be tuberculosis of the larynx before the lungs, especially, or any other organ was affected. If the pulmonary tissue after closest physical exploration is found unaffected and the larynx alone is the seat of the disease, knowing the cause to be resident in the bacilli of tuberculosis, he asked whether we might not locally apply remedies and effect a cure.

DR. MULHALL. The larynx in the case mentioned, presented the pallor always characterizing the mucous membrane of the upper air passages in tuberculosis. In the intro-arachnoid fold

there was an ulcer originating a persistent and painful cough, though without sputa, there was neither laryngeal œdema nor tubercular infiltration as is generally observed. Sometimes, though rarely, tuberculosis first of all affects the larynx. No local treatment would have favorably affected the disease as it presented in Dr. Wright. Laryngeal tuberculosis cannot be cured by local applications. One insuperable difficulty would be to keep a remedy in contact with such a surface in so irritable an organ. The ordinary treatment is to wash off the accumulated secretions and then dust it thoroughly with powdered iodoform, or to apply some antiseptic by continuous inhalation. The tubercular bacilli is most tenacious of life of all the germs and to destroy them would prove destructive to the larynx.

DR. RUMBOLD asked if Dr. Wright did not have the peculiar cough referred to before the development of the ulcer in the aryteno-epiglottic fold, to which Dr. Mulhall made answer that it was the intro-arachnoid fold which was the site of the ulcer and he could not state when the cough commenced.

DR. RUMBOLD had treated Dr. Wright for two years and certainly the cough had preceeded the ulceration at least ten or twelve months.

SATURDAY, December 13th, 1884.

DR. DUDLEY, President, in the chair.

DR. MULHALL presented a singularly interesting clinical case, in the person of a second course student at the St. Louis Medical College. This gentleman came under treatment about ten days preceeding for naso-pharyngeal catarrh, and it was discovered that with his mouth open their was emitted a peculiar to-and-fro friction sound, with it the patient had been familiar for some years. It is a double sound synchronous with the hearts action and ceases with suspension of respiration. It is very distinct from the mouth down to the trachea but is not heard below the top of the sternum. The most remarkable feature in this unique case is its synchronicity with the heart's action, while inaudible over that organ and yet its dependence upon respiration. The pulmonary condition is normal but as the cardiac impulse is booming, heavy and strong there is possibly hypertrophy of the left ventricle. The sound can be heard in a quiet room at the distance of four feet. Examination reveals nothing

abnormal in any of the respiratory organs nor in the eustachian tubes. The conclusion has been reached that this singular sound is dependant upon some element bringing into relation the circulatory and respiratory organs, inasmuch as both contribute to its production. It would seem to hinge upon friction between some blood vessel and a portion of the respiratory apparatus. It is inconceivable that the larynx gives rise to the sound for it is quite immovable. Fixation of the larynx does not suppress it.

DR. DEAN thought, that taking into consideration the clear and concise exposition of the singular phenomenon and after carefully listening to the sound, it must be regarded as one of contact or conduction, produced during the action of the heart by normal dislocation of the respiratory tubes. The larynx and hyoid bone may grate against the transverse processes of the cervical vertebræ and this may occur too in traumatic dislocation of the larynx. In examining the gentleman it was perceptible that upon grasping the larynx and hyoid bone and forcing them to the right that the sound ceased, and the explanation offered is strengthened by the fact that grating is not heard when contact ceases during suspension of respiration.

Galvano Caustic Application rendered painless by Hydrochlorate of Cocaine.

DR. MULHALL spoke of the painless use of galvano-caustic about the nostrils and other parts while they are anæsthetised by muriate of cocaine. In three cases no pain whatever was produced and the patients declared they did not care how much it burned them. It is understood that the cocaine and the caustic are only superficially applied. In two cases of acute coriza the muriate was used and in ten seconds the swollen nasal tissues were reduced far below their normal proportions, so that nasal respirations was absolutely perfect. It was also applied in two cases of laryngeal tuberculosis, in one using only a one *per cent.* solution which was effectual for the time being; but in the other after applying a four *per cent.* solution painless deglution was accomplished. A curious fact of physiological interest was observed by a Philadelphia physician who after using a four *per cent.* solution in the larynx, noticed that while the patient bore easily the contact of the probes, the ordinary reflex excito-motor action continued as if no cocaine had been applied. The remedy

is therefore of no assistance in operations upon the larynx, because the muscular reflex excitability remains unimpaired.

The mode of application is with absorbant cotton on the end of a probe. Dr. Bosworth explains its action upon erectile tissues by its effect upon muscular elements. It does not contract dilated cappillary veins which are often observed in tubercular laryngitis while its extraordinary contractile influence on the tissues over the inferior and middle turbinated bones is remarkable.

DR. DEAN had recently read statements relating to treatment of catarrh affecting the turbinated bones with the remedy and, through this is a painful affection, the result was favorable.

DR. POLLAK spoke of additional cases treated since his last report. Two of these were obstruction of the lachrymal duct wherein he split up the canaliculi and probed the lachrymal canal, both occuring in children and they offered no resistance after the cocaine was applied. He asked Dr. Mulhall if he did not think it would prove valuable in the treatment of hay fever?

DR. MULHALL was certain that it was the best remedy and Dr. Bosworth had entirely removed the symptoms of autumnal fever in two instances, through this is not so severe as hay fever. In the latter disease there are found certain excessively sensitive areas in the nose which reject the touch of the probe. The object is to destroy this sensitiveness so that when the particles of pollen are brought in contact, reflex disturbance is not excited. These hyperesthetic spaces can, with the muriate, be rendered anæsthetic but the fear is that after several applications the remedy will lose its power.

DR. WILLIAMS had recently anæsthetised the eye in a case of senile cataract so that when the operation was finished the old man asked when would the operation commence. In an iridechtomy neither the pinching of the conjunctiva nor the iris occasioned the least pain. He remarked upon the assistance rendered by the patient, under the influence of cocaine, inasmuch as the lids remain open and the ball imobile.

DR. SCHENCK had applied a four *per cent.* solution to the female urethra with a dropper in the removal of a tumor without mitigating pain. He noticed that the solution ran out of the urethra over the ostium and vulva and occasioned a marked ejaculation of secretion from the glands.

DR. POLLAK said that Dr. Knapp had applied it to the urethra with absorbant cotton on a probe with complete success.

DR. ATWOOD related an additional success in the treatment of acute nasal catarrh.

SATURDAY, Dec. 20th, 1884.

DR. DUDLEY, President, in the chair.

Glosso-Laryngeal Epitheliomatous Ulcer.

DR. MULHALL exhibited a specimen of epitheliomatous ulcer of the base of the tongue and adjacent parts of the larynx. The patient, when seen in October last, complained of pain and had difficult deglutition. The glosso-epiglottic sinuses were seen to be effaced by an indurated growth, extending to the level of the left aryo-epiglottic ligament, which was also indurated. The glands under the angle of the left jaw were enlarged and hard, this fact led to the supposition that it was an affection of the tongue and not of the larynx, as in the latter case the glands become affected later in the course of the disease. Severe dyspnœa supervening, tracheotony was performed. Post mortem revealed that connection between the cervical lymphatics and those of the larynx was not very intimate. The specimen shows that only the upper portion of the epiglottis remains attached, by ligaments, to the larynx. One of the cervical glands had suppurated. He had all the characteristic symptoms of laryngeal cancer complicating the base of the tongue, *i. e.* hæmorrhage, ulceration, induration and infiltration of adjacent glands. The doctor thought that the tracheotomy was made a little too high and that traumatic necrosis of cricoid cartilage had resulted from the pressure of the canula.

In answer to a question by Dr. Dean the statement was made that the patient could swallow only a teaspoonful at a time.

DR. BREMER believed that Dr. Mulhall's diagnosis was correct; it is nevertheless understood that whenever an epithelioma develops, there is abundant proliferation of characteristic tissue in contiguous parts. It seems, in this case, that almost all the cancerous tissue had disappeared and that there is but little induration left. It is barely possible that this is tuberculosis, but to verify the supposition it will be necessary to examine a neighboring gland, when the presence of the tubercle bacillus will establish that fact.

DR. MULHALL said, there is no recorded case of tuberculosis of the mouth without pulmonary involvement. Although no post-mortem examination of the lungs was made, frequent ante-mortem physical explorations gave negative signs. The size of the ulceration is suggestive of epithelioma rather than tubercle, and again tubercle ulcer is not characterized by hardened and everted edges as in this case, such ulcers have soft edges and the evidence seems conclusive that this specimen is one of epithelioma.

DR. DEAN thought the history that of epithelioma, although it is remarkable that there is no greater proliferation than is here exhibited. It is strange that it did not involve the arches of the soft palate nor develop in lungs, larynx or trachea.

DR. POLLAK asked how the abscence of cough after swallowing could be accounted for?

DR. MULHALL answered, that the reason seemed to be that in the effort at deglutition he was able to so elevate the base of the tongue as to prevent the passage of material into the air tube. In the abscence of the tongue its base is sufficient to cover the larynx and it seems that muscular power remained to draw it over that organ and perhaps too, the larynx contracted to exclude fluids.

Dosage in Medicine.

DR. MULHALL said that a subject of interest especially to the general practitioner is therapeutics. It is well understood that some medicines in large doses produce effects the opposite of those obtained by smaller ones. To illustrate, opium in large doses is constipating while in small doses it assists the peristaltic action of the bowel. An ounce of castor oil will purge, but there are cases of diarrhœa independant of retained *prava ingesta* which are relieved by five drop doses of the same medicament. The rule also applies to digitalis, aconite, acetate of lead and many other agents. Without reference to homœopathic infinitesimals, statements of practical observations upon this subject will prove instructive.

DR. ATWOOD remarked that the views of Dr. Mulhall with regard to the opposite effects of large and small doses respectively of the same remedy are well understood. A notable instance is that of ipecac which in large doses is emetic, whereas in small portions it quiets vomiting.

Concentrated Remedies—Vegetabe Alkaloids.

Recently Dr. Dean, referring to the administration of tinctures and decoctions, remarked, that under his observation they are giving place to alkaloids of various vegetables administered in small doses frequently repeated, and that the substitution was advantageous, this accords with the observation of others. Recently there has been introduced a line of alkaloids condensed, portable, easy of administration and of certain effect. A young woman narcotised by morphine refused professional assistance but consented to receive a hypodermatic injection, supposing the solution to be the same drug; one-fifth of a grain of apomorphia was injected above the wrist when violent emesis ensued. Recovery promptly followed upon a similar injection of atropine, gr. one-thirtieth.

DR. DEAN reiterated former expressions favorable to the administration of alkaloids in small doses frequently repeated. These remedies will prove very valuable. It is difficult, however, to induce those who have become familiar with the use of tinctures, decoctions etc, to make a departure favorable to new forms and instrumentalities. The great advantage in giving these alkaloids is the certainty of obtaining effects and the ease with which by regulating the intervals of administration we can direct and control results. Their use will encourage the adoption of the metric system of apportioning doses, which is vastly more simple than the old method. They come in milligrammes and centigrammes and these granules, easily carried, can be prescribed in emergencies.

DR. NEWLAND while endorsing all that had been said in praise of the alkaloids feared that the stupidity and carelessness of ordinary nurses would forbid their general adoption.

DR. DEAN asked if it was not as safe to give four or five small doses of a remedy as to give one large dose? By giving the large dose it will sometimes be impossible to foretell what the effect will be, whereas by adminstering the small dose we can, observing closely, determine with some degree of accuracy its beneficial or evil influence.

SAINT LOUIS MEDICAL SOCIETY.

OFFICERS AND COMMITTEES FOR THE YEAR 1885.

LEGRAND ATWOOD, M. D., *President.*
R. M. JORDAN, M. D., *Vice President.*
W. B. DORSETT, M. D., *Recording Secretary.*
J. C. MULHALL, M. D., *Corresponding Secretary.*
GARLAND HURT, M. D., *Treasurer.*

COMMITTEE ON ETHICS.

J. M SCOTT, M. D., F. J. LUTZ, M. D.,
R. J. HILL, M. D.,

COMMITTEE ON ELECTIONS.

A. A. ROWLAND, M. D., H. HODGEN, M. D.,
F. D. MOONEY, M. D.,

PUBLICATION COMMITTEE.

L. BREMER, M. D., F. R. FRY, M. D.,
A. H. OHMANN-DUMESNIL, M. D.,

EXCUTIVE COMMITTEE.

A. H. MEISENBACH, M. D., F. M. RUMBOLD, M. D.,
T. H. SMITH, M. D.,

LIBRARY COMMITTEE.

F. W. WESSLER, M. D., D. V. DEAN, M. D.,
S. J. BARKER. M. D.,

ARTICLE XIII.

Hillsboro, Ills., Dec. 1884.

SEMI-ANNUAL MEETING OF THE DISTRICT MEDICAL SOCIETY OF CENTRAL ILLS., WITH SYNOPSIS OF PROCEEDINGS.

The Society met in City Hall, Litchfield, Ills. Dec. 2nd, 1884. President Dr. T. D. Washburn, of Hillsboro, in the chair.

The following members were present, viz, Washburn, Blackwelder, W. H. Cook, Colt, Baxter Haynes, Hood, Harvey, Dickinson, Amos Sawyer, Miller, Prince, Whitten and Sprinkle. The following were elected to membership viz: Dr. V. B. Barcroft, Walshville, Dr. J. T. Easley, Sorento, Dr. Joseph Pogue, Edwardsville, Dr. A. S. Bartlett, Virden, Dr. D. K. Cornell, Taylorville.

Dr. Pogue read a very able article on the subject. "An inquiry as to the best mode of preventing shortening in fracture of the femur." The paper was discussed by Drs. Murrey and Prince.

"The status of medicine in science," was the theme of Dr. Sawyer's paper. The doctor thinks that medicine has advanced along with the other sciences, and that the opprobrium cast on the profession is unjust and unmerited: Discussion by Drs. Pogue, Haynes and Blackwelder.

Dr. Washburn presented the following topics for consideration at the next meeting.

1. The scope of medical legislation.
2. Electro-therapeutics.
3. Materia medica and medical preparations.
4. Nervous diseases. Pathology and treatment of,
5. Throat and nasal diseases.
6. Thoughts on micrococci, bacteria and etc.
7. Prevention and treatment of cholera.

AFTERNOON SESSION.

"A paper about Doctors," was the subject of Dr. Harvey's essay. The paper was original and contained many points of interest. It was discussed by Dr. Blackwelder. Dr. Whitten read an article "On purvules and minimun doses" and advocated

pleasant medication, believing from his experience that small doses frequently repeated are more often beneficial than larger doses at longer intervals.

Discussion by Drs. Sawyer, Harvey, Hood, Haynes, Blackwelder, Cook and Pogue.

"The Emma Bond case" by Dr. D. K. Cornell, of Taylorville, Miss Bond's physician. The doctor gave the medical history of this case and cites many points of interest not fully brought out before. Discussion by Drs. Colt, Hood, Prince, Harvey Sawyer, Blackwelder, Washburn, Haynes and Sprinkle.

Dr. Prince gave an account of his trip to Europe during the past summer. He related the result of several experiments by which the number of bacteria contained in a given quantity of air in the city of Paris was found to be eight to ten times as many as in the neighboring fortifications. The doctor displayed a diagram of an operating room constructed with the view of preventing poisoning from impurities ordinarily contained in the air. Discussion by Drs. Sawyer and Harvey.

Dr. Colt presented a case of fibrous tumor. After the transaction of regular business the society adjourned to meet in Pana, Ills. April, 28th, 1885. J. H. Miller, M. D., Secy.

Oconee, Ills.

Book Reviews.

ARTICLE XIV.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By GEORGE HENRY FOX, A. M., M. D. Forty-eight Plates from Life, colored by Hand. [New York: E. B. Treat & Co.]

We have had occasion to review these illustrations when they first appeared and we, at that time, expressed our high appreciation of the work that had been undertaken, as well as the good character of it, both from an artistic and medical point of view. The book form in which Messrs. Treat & Co. have issued these plates, together with the accompanying text, makes the whole still more attractive and furnishes the medical practitioner with a valuable work at almost a nominal price.

It would be almost impossible to take the plates *seriatim*, but we notice among the best those illustrating comedo, acne vulgaris this one being particularly good, keloid being excellent and acne rosacea rather an improvement on the plate issued at first, the face being about twice the linear dimensions and consequently the lesions appearing much more plainly. Leucoderma, chromophytosis, favus, and eczema are very good and the cases selected, typical ones. We wish to call especial attention to the plate representing eczema palmæ as it is among the best and clearest of these plates. Lupus vulgaris and kerion are good, molluscum being very marked and clear, herpes and erythema being above the average. One of the difficulties photographs must contend with, is the want of sharpness of definition, consequently in those diseases where the lesions are small, the plates lack that clearness which is of the highest importance to the student of dermatology.

A number of cases of rather uncommon affections are presented, but we notice that some of the more ordinary are wanting. For instance, pemphigus, seborrhœa and others which might be more valuable to the learner than such as cornu cutaneum or sarcoma cutis.

A valuable feature of this work is the clinical history of each case which accompanies its pictorial representation. Many valuable hints are given in the text and the reader is enabled to see there the treatment recorded, which has proven successful.

We can heartily recommend this work to physicians as a valuable aid in the diagnosis and treatment of affections of the

skin. It has already partly performed its mission in awaking a greater interest in the subject of dermatology, a branch of medicine which soon bids fair to distance many of the older and more established ones.

A. H. OHMANN-DUMESNIL, M. D.

ATLAS DES MALADIES DE LA PEAU. (Dermatologie et Syphiligraphie.) Per le DR. SILVA ARAUJO. Facs. I. Trichomycosis Favosa; Facs. II. Tricophyton Tonsurans. Avec text. (Rio de Janeiro: 1883.)

ATLAS OF SKIN DISEASES. (Dermatology and Syphilography) By DR. SILVA ARAUJO. Part I. Favus; Part II. Tricophyton Tonsurans et Trichomycosis Barbæ. (Rio Janeiro: 1883.) From the Author.

It was a genuine surprise to us to receive the first two parts of this interesting work from such a remote point. We would hardly expect our South American friends to display such enterprise and devotion to a branch as little cultivated in general. The two parts of the atlas before us are excellent in every respect. The plates are chromo-lithographs which are true and life-like and at the same time, exact as regards the delineation of the characteristics of the diseases represented.

The author Dr. Silva Araujo is a gentleman well-versed in syphilography and dermatology, who has done a vast amount of original work and investigation and who, besides teaching his branches at the Polyclinic, also edits the "*Union Medicale*" of Rio Janeiro. The text which he furnishes is valuable not only on account of his excellent clinical descriptions but from the many original observations and remarks which he makes, drawing largely from his extended experience and observations.

In the first number we have a case of favus of the head in a little girl, graphically represented and as graphically described. The author gives us, besides the general bibliography connected with the subject, many of his own observations and those of eminent South Americans who are little known, if not altogether unknown to their northern confrères. Dr. Araujo is an accomplished microscopist and he promises in a future part to devote some space to a description and drawings of the parasite of favus.

The second part contains two plates, the first one being a very clear representation of a case of tricophytosis barbæ in its pustular form, whilst the second is the microscopic appearance of the parasite—tricophyton tonsurans. Both these plates are excellent. The text accompanying these two plates is not only complete, but clear and in the highest degree interesting. The only cause of regret which we have in respect to this atlas

is that the numerous duties of the author prevent his issuing the parts more rapidly.

In typographical appearance this work is unexceptionable, it is printed in quarto form on excellent paper, in large bold type. To those who are acquainted with the French language it will form a most valuable addition to the library and we hope for the sake of those unacquainted with it, that some publisher will take sufficient interest in the work to reproduce it in English.

A. H. OHMANN-DUMESNIL, M. D.

OSTEOTOMY AND OSTEOCLASIS FOR DEFORMITIES OF THE LOWER EXTREMITIES. By CHARLES T. POORE M. D., Surgeon to St. Mary's Free Hospital for Children. [New York: D. Appleton & Co., 8 vo, pp. 187. Cloth.

This is an interesting and practical monograph, in which the author has admirably succeeded in laying before the medical public the operative procedures usually resorted to, for the correction of osseous deformities of the lower extremities.

In the introductory chapter the relation between rickets and certain deformities of the lower limbs is discussed and especial stress is laid upon the causative relation of the former to the latter in children. Most surgeons will agree with him, that cases of the late appearance of rickets are rare and that those cases of deformity, more particularly those about the knee-joint, so frequently seen in the persons of bakers, brewers, and others, are not to be explained by supposing in these apparently, and, in fact, really well nourished individuals a disease of nutrition, but by the well known fact that they are compelled to undergo great fatigue and to labor unusually hard, during a period when the long bones grow and develop rapidly, from the twelfth to the twentieth year.

Mechanical appliances for the correction of osseous deformities are successful only before sclerosis has taken place. Afterward the osteotomy or section of the bone should be resorted to. To the history of this procedure, the instruments requisite for its performance, the manner of operating and the management of the wound the second chapter is devoted. He prefers the chisel to the saw. It is a little inconsistent for the author to say in one part of this chapter that he has long since abandoned Listerism which in the now accepted meaning of the term means cleanliness, removal of all foreign bodies, perfect coaptation of the wound, thorough drainage and absolute rest, and then to insist further on, upon the faithful observance of these precepts to obtain primary union.

The operative treatment of deformities at the hip joint following coxalgia, rheumatism, unreduced dislocations and vicious union after fractures, are treated of in chapter III.

Chapter IV contains a discussion of the etiology, pathology, symptomatology, mechanical and operative treatment, so far asthe section of muscles and ligaments are concerned, of *knock knee.*

The author gives preference to the operation devised by Macewen for the correction of genu valgum (chapter V) because it is easy to perform, is applicable to all cases, is so far removed from the joint that there is no danger of injury to it or its ligaments, and at the same time is near if not directly at the point of abnormal deviation. Ogston, Chiene, Shede and Bryant at the last meeting of the international medical congress, held in Copenhagen, entertain the same view in regard to the superiority of Macewens operation.

In genu valgum (chapter VI) he advises an osteotomy at the point of greatest curvature in each bone; the bone most markedly bent should always be divided first.

Bony ankylosis of the knee joint at an angle is best remedied by Buch's operation, cuneiform osteotomy (chapter VII).

In the treatment of tibial curves (chapter VIII) he follows Howard Marsh's plan of forcibly straightening the limb, the patient being etherized, and then putting it up in plaster of paris, when the bones are only moderately sclerosed; afterward osteotomy linear or cuneiform at the point of greatest curviture should be made.

Osteoclasis or the forcible breaking of bones is detailed rather briefly in chapter IX; a short chapter on statistics and a very complete bibliography conclude the volume.

The authors style is clear and forcible, the illustrations are well executed and to the point and the typographical part is creditable to the publishers. The work will be a useful addition to the surgeons library. F. J. L.

MYTHS IN MEDICINE AND OLD-TIME DOCTORS.

This is the title of a neat volume just published by G. P. Putnam's Sons, New York and London. It is from the ponderous pen of Alfred C. Garret M. D. who takes the public into his modest confidence to the extent of informing us, that he rejoices in the fellowship and membership of two Massachusetts, and one National Medical Society. Nevertheless the doctor indulges us in his book with sawed-off sentences whose raw edges stand sadly in need of a little literary salve. We have painfully noticed that whenever the gentleman employs a metaphor it is suffering from lumbago, and where he aims to be dignified now and then, his style is still unmistakably stiff and rheumatic. His introduction from the opening sentence to its close is afflicted with a complication of defects that should admonish him against the folly of his attempt to commingle literature and science. There is a little that is new, and a little that is true in the volume before us, but what is new is not true and what is true is not new. (We omit

quotation marks in connection with this last sentence; every body knows that we quote and from whom.) With stores quaint, rich and romantic to draw from, as every student knows, the doctor can have no reasonable excuse for giving us so bad a book. We indulge the hope, however, that this most interesting field of medical literature will remain uncultivated no longer. In the hands of one that can study, select, arrange, digest and write well, the subject could be made one of surpassing and universal interest. We have only room for one quotation from Doctor Garret's volume. "Pythagoras, before assuming the business of teaching philosophy and medicine, had spent much time in traveling through many countries, and probably taught something of the Egyptian medical art in his courses of instruction at Carona, where medicine was first cultivated as a department of physiology in Europe. This school of Pihtagoras at Carona in Magna Graecia, now the South part of Italy etc" (p. 22) There is no excuse for the blundering ignorance of locating Phythagoras at Carona a city that had no existence whatever. The doctor will thank us for setting him right before his book falls into uncharitable hands. Crotona was the home of the great Sage, and since Dr. Garret's volume is also to be issued in London, we are afraid it will add abroad little to our reputation in the domain of medical literature.

MODERN MEDICAL THERAPEUTICS: A COMPENDIUM of Recent Formulæ and Specific Therapeutical Directions. By George H. Naphey, A. M., M., D. Edited by Joseph F. Edwards, M. D., and D. G. Brinton, M. D. Eight edition, enlarged and revised. 8vo., pp. 620. Price cloth, $4; sheep, $5. [Philadelphia, D. G. Brinton, 1885.

Of the thoroughly useful books to the practicing physician, there is probably none to which he would refer oftener and with greater satisfaction than the one above named. It has stood the test of seven editions, and now appears for the eight time bringing the art of applied therapeutics down to the close of 1884.

The revision it has undergone has been a most searching one, as the numerous omission from previous editions testify. But the additions have been greater. In spite of dropping many procedures and articles which have not stood the test of experience well enough to justify their retention, and in spite of relegating the section on Diseases of Children to another volume, the present edition is noticeably bulkier than those which preceded it. The new matter, indeed, amounts to about one hundred and fifty pages.

It would be difficult to give in any brief space a just idea of the wide range of this new matter. It embraces everything of

value that has appeared during the last four years with reference to the treatment of the diseases considered in the volume.

This is particularly full and satisfactory with regard to all the approved new remedies.

Various diseases are introduced, not included in former editions, as insanity, suffocative bronchitis, paroxysmal hæmaturia etc. The reference show that the editors have gleaned carefully the whole field of medical literature, both periodicals and books. In addition to this, the preface informs us that the editors obtained by personal correspondence with leading physicians a considerable number of details of treatment and formulæ which have never been previously published. Hence the work is to a certain extent based on unpublised material.

A PRACTICAL TREATIS ON THE DISEASES OF THE EAR, Including a Sketch of Aural Anatomy and Physiology, By D. B. St. JOHN ROOSA, M. D., L L, D. Sixth Edition. Revised and Enlarged. 8vo, pp. 718 [New York : Wm. Wood & Co., 1885.

Roosa on the ear has for many years been considered *the* text book on this subject. This work is the result of his own observations during a twenty-five year busy practice. Roosa has very few theories to force on his readers, but his instances for his method of practice are very numerous.

This, the sixth edition, is enlarged and most of it has been thoroughly revised. The illustrations are not merely for show but for instruction and greatly enhance the views given in the text.

While not agreeing entirely in all of the author's methods of treatment, nor in all of his theories, yet I most willingly recommend the work to both specialist and general practitioner.

Thos. F. Rumbold.

THE AMERICAN SYSTEM OF PRACTICAL MEDICINE. Edited by WM. PEPPER, M. D., LL. D., Assisted by Louis Starr, M. D.

In five imperial octavo volumes, containing about 1000 pages each, with illustrations. Volume I. ready February 1st, 1885; the other volumes will follow at intervals of about four months.

Prices per volume, cloth, $5.00; leather, $6.00; half Russia, $7.00.

FOR SALE BY SUBSCRIPTION ONLY.

Henry C. Lea's Son & Co., Philadelphia.

E. Holdoway & Co., 617 N. Seventh St., St. Louis, Mo.

Western Agents.

The publishers feel pardonable pride in announcing this magnificent work. For three years it has been in active preparation

and it is now in sufficient state of forwardness to justify them in calling the attention of the profession to it as the work in which for the first time American medicine will be thoroughly represented by its worthiest teachers, and presented in the full development of the practical utility which is its distinguishing characteristic.

So wide is the scope that, with the exception of midwifery and matters strictly surgical, it embraces the whole domain of medicine, including the departments for which the physician is accustomed to rely on special treatise, such as diseases of women and children, of the genito-urinary organs, of the skin, of the nerves, hygiene and sanitary science, and medical ophthalmology and otology. Moreover, authors have inserted the formulas which they have found most efficient in the treatment of the various affections. It may thus be truly regarded as a complete LIBRARY OF PRACTICAL MEDICINE, and the general practitioner possessing it may feel secure that he will require little else in the daily round of professional duties.

THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY. A Systematic Treatise on the Theory and Practice of Surgery by Authors of Various Notions. Edited By John Ashhurst Jr., M. D. Illustrated with Chromo-Lithographs and Wood cuts. In six Volumes. Vol. V. pp. 1207 [New York: Wm. Wood & Co., 1884.

This, the fifth of the series, is in every respect up to the standard of the preceeding numbers. No better conspectus could be given of this volume than that contained in the preface. "The fifth volume of the encyclopædia continues the disscussion of surgical affections arranged according to the Regions of the Body in which they are observed, embracing Articles on Injuries and on Diseases of the Head; on those of the Eyes, of the Ears, and of the Nose; on those of the Face, Cheeks and Lips; on those of the Mouth, Fauces, Tongue, Palate, and Jaws; on the Surgery of the Teeth; on Injuries and Diseases of the Neck and of the Air-passages; on Injuries of the Chest; on Diseases of the Breast; on Injuries and Diseases of the Abdomen; and on Hernia."

A MANUAL OF BANDAGING. Adapted for Self-Instruction. By C. Henri Leonard, A. M., M. D. With 139 Engravings. Second Edition, Revised and Enlarged. Octavo pp. 159. Price, Post Paid, $1.50 [Detroit: Illustrated Med. Jour. Co.

The fact that this author of the book has been compelled to republish his work is a great recommendation; for at the present day, so prolific in medical works, none but the fittest survive the first edition. The work is admirably "adapted for self-instruc-

tion" the language being clear and terse and the cuts excellent and well executed. The student of medicine could desire nothing plainer.

SIXTH ANNUAL REPORT of the State Board of Health of Illinois. With two Appendixes. A.—Conspectus of the Medical Colleges of America, Revised to Dec. 20, 1884. B.—Official Register of Physicians and Midwives in Illinois. Revised to Dec. 1. 1884.

This is an exhaustive report of one of the most efficient Boards of Health in the United States. The conspectus of the Medical Colleges of America, embraces the Titles, Locations, Addresses of Corresponding Officers, Organizations, Curricula of Study, Requirements for Admission and for Graduation, Fees, Numbers of Matriculates and of Graduates of all Existing Medical Schools in the United States and Canada. The Official Register of Physicians and Midwives includes all who are allowed to practice their calling. There is also a list of those persons whose certificates have been revoked. The directory of Medical Societies in the State is very valuable, giving the officers names and addresses. This is the most complete work of the kind that has ever reached our table.

Books and Pamphlets Received.

ARTICLE XV.

Photographic Illustrations of Skin Diseases. By George H. Fox, A. M., M. D. Forty-eight Plates from Life, Colored by Hand. [New York: E. B. Treat & Co.

The International Encyclopædia of Surgery. A Systematic Treatise of the Theory and Practice of Surgery. By Authors of various nations. Edited by John Ashhurst Jr., M. D. Illustrated with Chromo-lithographic and Wood Cuts. In six volumes. Vol. V. Octavo, pp. 1207. [New York: Wm. Wood & Co. 1884.

A Manual of Bandaging. Adapted for self-instruction. By C. Henri Leonard, A. M., M. D. with 139 Engravings. Second Edition, Revised and Enlarged. Octavo. pp. 159. Price, Postpaid, $1.50. [Detroit: The Illustrated Medical Journal Co. 1884.

The Diagnosis and Treatment of Chronic Nasal Catarrh.

Three Clinical Lectures Delivered at the College of Physicians and Surgeons, New York. By George Morewood Lefferts, A. M., M. D., pp. 40. Reprinted from Medical Journals [St. Louis: Lambert and Co. 1884.

G. P. Putnam's Sons will publish early in the new year a Monograph on the New Anæsthetic entitled,—"Cocaine and its uses in Ophthalmic and General Surgery." By Dr. H. Knapp. and a Treatise entitled—"Acne and its Treatment" By Dr. L. B. Bulkley, a practical treatise based on the study of over 1,500 cases of diseases of the sebaceous glands.

The Basic Pathology and Specific Treatment of Diphtheria, Typhoid, Zymotic, Septic, Scorbutic and Putrescent Diseases generally. By George J. Ziegler, M. D. Octavo. pp. 225. Price $2.00. [Phila: Geo. J. Ziegler, M. D. 1884.

Sixth Annual Report of the State Board of Health of Illinois. With two appendixes. A.—Conspectus of the Medical Colleges of America. Revised to Dec. 20, 1884, B.—Official Register of Physicians and Midwives of Illinois. Revised to Dec. 1. 1884.

Muriate of Cocaine as a Local Anæsthetic. By J. A. Stucky M. D. Lexington Ky. [Reprint *Louisville Med. News.*

Acetate of Lead in Ocular Therapeutics. By David De Beck M. D. No. 1. Contributions from the Ophthalmic Clinic (Prof. W. W. Seely) Medical College of Ohio. [Cincinati: Robert Clark & Co. 1884.

Catarrhal Mucous Membrane. A paper read before the Am. Rhinological Ass. By P. W. Logan, M. D. Knoxville, Tenn. (Reprint. *Southern Practitioner.*

Address in Medicine delivered before the Medical Society of the state of Penn. By W. H. Daly, M. D., of Pittsburgh.

Membrane Virginatatise, By E. S. McKee, M. D. Cincinati O. (Reprint *Nashville Jour. of Med & Surgery.*

Irregular Contraction of the Uterus. By E. S. McKee, M. D., Cincinati O. (Reprint. *Columbus Med. Jour.*

Permanganate of Potassium. Its action and Uses. By Roberts Bartholow, M. D., LL. D. (Reprint. *Med. News.*

The Plaster of Paris Dressing in the Treatment of Fractures. By W. O'Daniel, Bullards, Ga. (Reprint. Transactians Med. Ass. of Ga.

A Contribution to the Relations of Ovulation and Menstruation. By A. Reeves Jackson, A. M., M. D. (Reprint. *Journal of the American Med. Ass.*

Obstruction of the Gall-Duct and its Bad Consequences, with Remedial Operation suggested. By J. Mc F. Gaston, M. D. Atlanta, Ga.

School Hygiene in Relation to its Influence upon the Vision of Children, or School Sanitation. By A. W. Calhoun, M. D., Atlanta, Ga. (Trans. of the Med. Ass. of Ga.

News Items.

ARTICLE XVI.

Recent Patents.

The following list of patents relating to the medical and surgical interests, granted during the month of December, is specially reported by Franklin H. Hough, solicitor for American and Foreign patents, 925 F. Street, N. W. Washington, D. C.

Truss.—D. L. Snediker, Hartford, Kans.

Disinfectant.—A. E. Duncan, Yellow Springs, O.

Detergent.—H. C. Herrick, Monroe, Wis.

Apparatus for curing deformities.—G. Aubin, Philadelphia, Pa.

Truss.—F. Breitscheid, St. Louis, Mo.

Device for applying electricity to the human body.—E. H. Thurston, Hagerstown, Ind.

G. P. Hilton, Glensdale, S. C.

Medical still or vapor-generator.—L. M. Emery, Leavenworth, Ind.

Disinfecting apparatus.—R. Thayer, Philadelphia, Pa.

Inhaler.—C. B. Harness, London, England.

THE *Archives of Medicine* has discontinued.

THE Massachusetts General Hospital was bequeathed $10,000. by the late Francis P. Hurd of Wakefield, Mass.

THE University of Virginia is to have a veterinary department.

THE SAINT LOUIS
MEDICAL & SURGICAL JOURNAL.

VOLUME XLVIII——February, 1885.——No. 2.

Original Contributions.

ARTICLE XVII.

FLOATING MINUTE ORGANIC MATTER IN THE AIR AND ITS MANAGEMENT TO PREVENT DISEASE AND TO MITIGATE OR CONTROL IT, WITH A NEW DEVICE FOR ATMOSPHERIC PURIFICATION. WITH AN ORIGINAL ILLUSTRATION.

By DAVID PRINCE, M. D. of Jacksonville, Illinois.

As to the number of microbes in the air, some reliable information is to be obtained from some recent observations by M. Miguel in a publication reviewed by M. Hache in the *Revue de Chirurgie* for May and June, 1884.

By these observations, what was known before in relation to the influence of the weather is further confirmed.

The spores of the mould and cryptogams are especially variable, being most prevalent in damp weather. On the other hand, the septic microbes are least abundant during the rainy periods and most abundant during the periods of drouth.

The average number of microbes found in the air at M't Souris (near Paris) was 84 to the cubic metre of air. In approaching the centre of the city, the number was found to increase, being ten times that outside of the city.

A series of observations was made at the top of the Pantheon, 250 feet high, which showed that the air was more pure there than at M't Souris, and ten times less charged with microbes than that on the surface in the centre of the city.

In the interior of the well-kept habitations, the microbes increase during cold weather at the same time that they diminish in the free atmosphere.

To give an example of the enormous accumulation in apparently well-kept houses in populous centres, observations were made in the fourth story of a house recently built, in a bed-

room occupied only twelve hours of the twenty-four, and there was found to be the large number of 526 microbes to the cubic metre of air, while in a room similarly situated at M't Souris there were only 325.

In hospitals, microbes have been found by M. Miguel to the number of 6,300 to the cubic metre. At the Hotel Dieu, 5,123 in the summer and at the Hopital de la Pitie an average, by the year, of 11,100.

The microbes found in surgical wards abound especially in the form of micrococcus. The microbes cultivated and inoculated into animals generally proved harmless, but in some rabbits and guinea pigs, grave affections were produced.

The dust deposited upon objects was found to contain microbes to the number of 750,000 to 1,300,000 to the cubic metre.

The question is discussed by the author and his reviewer, whether the different forms of microbes are originally of different species and varieties, or whether they are capable of developing or degenerating from one form and character into another. M. Miguel, M. Cohn and M. Nœgali are quoted as having investigated the subject, the latter of whom is quoted thus: "I am well convinced that too many species have been distinguished among the schismocetes. It seems to me, on the other hand, somewhat probable that all the schismocetes constitute one natural species. There may exist among them a small number of genera or species now recognized of which each passes through a cycle of forms."

M. Hache goes on to say, that successive cultures can profoundly modify the mode of their physiological activity.

Examples are quoted of the metamorphosis of the comparatively innocent hay bacillus (or septic bacillus) into the microbe of anthrax or splenic fever, which is one of the most virulent of the pathogenic forms.

Finally, the cultivations of Pasteur are referred to as a proof of this position. On the other hand, Klein, in a series of articles in recent numbers of the *Practitioner*, which have been published also by McMillan in book form, claims that in those cultures in which septic microbes seem to have been converted into pathogenic microbes, and vice versa, there has not been sufficient care to secure purity of culture; that the kinds have become mixed to such an extent as to destroy the value of the observations.

Many carefully made observations and some diagrams are

presented in the article by M. Miguel to show that, in the main, the amount of disease prevailing among people is proportionate to the number of minute organisms floating in the air; the greater amount of mortality in the centre of large cities corresponding with the greater number of floating microbes.

One reason for this may be that cities furnish in decaying organic substances, the culture media, for the propagation of the dangerous forms of microbes, while in the country the decaying material is chiefly vegetable and fitted for the development of the zymotic and septic varieties, and equally unfitted for the development of those microbes which are known to produce specific diseases, the most common of which is erysipelas.

According to present knowledge, the organic objects floating in the air may be classified:

1. The spores of objects many of which are to be seen with low powers. These became familiar to the earliest observers with the microscope, as the yeast plant.—*Zymotic Agents.*

2. The spores and sometimes the developed objects of a class requiring higher and sometimes the highest powers to see them, which produce in nitrogenized organic material the phenomena of putrefaction but have no power of attacking living tissue. As, bacterium termo, hay bacillus—*Septic Agents.*

3. The spores and sometimes the developed objects of a class generally requiring high powers for their observation, which produce, when introduced into living tissues, or their fluids, changes characterized by the phenomena of special disorders, as erysipelas, hospital gangrene, anthrax, tuberculosis, etc.—*Pathogenic Microbes.*

In the following named diseases, this contagium has been proved to be *particulate* and vital, capable of mutiplying and perpetuating its kind when temperature and sustenance render it possible.

These are various septic developments, and erysipelas, hospital gangrene, small-pox, diphtheria, gonorrhœa, Koch's septicæmia of mice, Davaine's septicæmia, chicken cholera, swine cholera, leprosy, Koch's malignant œdema, anthrax, actinomycosis, tuberculosis, relapsing fever and Asiatic cholera. The last lacks the proof of successful inoculations after a series of cultivations.

From this it is probable that all other contagious and infec-

tious diseases are originated and repeated by the action of similar particulate vital agencies.

DIGESTION.

Dr. G. V. Black, in his book on "The Development of Poisons through Micro-Organisms" has helped to generalize the conception of the manner in which living things appropriate nutriment from surrounding food material. The amœba converts a portion of its exterior into a temporary stomach by investing an object sufficiently small and digesting it, so that the nutritive elements of it may be absorbed. In accordance with the same idea, an object smaller than a blood cell comes in contact with the tissues of the body. If the vital condition of the tissue is sufficiently strong, the minute object may be digested. If, on the other hand, the vital force is weak, the cell, with which the invader comes in contact, is digested and the invader by natural increase becomes a spreading colony, appropriating more and more of the adjacent substance. If several individual invaders gain entrance at the same time, the conquest is more rapid. It appears from the researches of Pasteur, Koch and others, that different microbes have different degrees of power in the attack. The septic micrococci, bacteria, and bacilli being only capable of attacking material destitute of present vitality, while they are incapable of invading living substance.

There are minute living objects, most commonly floating in the air, of many species or varieties and capable of living upon albuminoid material. In accordance with this idea a blood clot exposed to the air and left in the wound may become the seat of septic changes, while the lips of the same wound brought together without any intermediate clot, though exposed to the same germ-bearing atmospheric contact, may digest the invading organisms and heal by the *first intention*. The blood clot, however, having no such vital power of resistance, may go into a state of putrefaction and become a source of irritation and infection to the adjacent living surface. Again, if the supposed blood clot is secluded from air containing organisms, or if the vitality of these invaders is neutralized by some antiseptic agent, as carbolic acid or mercuric bichloride, the clot fails to go into putrefaction and becomes penetrated by a living projecting growth, secreting a soluble ferment, by which the clot is digested and brought into a condition of solution to be absorbed and carried away. In this

view, the question of the innocence of a blood clot turns upon the fact of its exposure to the atmospheric organisms in a condition in which they can appropriate its nutritive material and thrive upon it. If, in a peritoneal cavity, a clot has had such an exposure it will probably go into a condition of putrefaction. If, on the other hand, through the absence of organisms brought by the air, or through their neutralization by antiseptic agents, the seeds of putrefaction are absent or inactive, the clot will become ultimately permeated by leucocytes, digested and absorbed. The same thing happens with catgut ligatures, with sponge, or other substance which the tissues have the power of dissolving by the production of an appropriate digestive fluid. Catgut may be said to be easy of digestion, so that it disappears in a few days. Silk is more difficult of digestion and is, therefore, more liable to result in an abscess for its ultimate expulsion. Linen is more difficult still of digestion and, therefore, more liable than silk to the formation of an abscess. Silver is again absolutely indigestible, while it is again unirritating and may innocently remain any length of time in contact with living tissue.

A catgut ligature or a blood clot containing septic germs, is almost certain to proceed to putrefaction, unless from the smallness of volume, the living tissues may be capable of surrounding the germs and infiltrating the clot, catgut or other substance containing them, with a digesting agent capable of destroying the vitality of the microbes; of dissolving and carrying away both them and their store of food.

As these agents, either in their developed or in their germ state, float everywhere in the air without the possibility, by any means hitherto practiced, of completely excluding them, except on a very small scale, their entrance to some extent into every open wound is a matter of course.

This consideration points to the importance of the employment of local antiseptics during the progress of operations attended by incisions and as long afterwards as the wound remains open. The antiseptics are employed in the form of spray or of a continuously flowing stream.

The danger is greater when the invaders are not simply the agents of sepsis, but are the pathogenic microbes of erysipelas, hospital gangrene or other infectious disease.

These are proved to have a capability of attacking living tissues and of producing by the employment of a stronger diges-

tive agent, the destruction and appropriation of live cells and fixed tissue, without any other natural limit than the whole extent of the body attacked.

If the invading agent be very small in amount and the vital condition of the patient be perfect, the invaders, if not repulsed or destroyed in the very entrance, may be limited to the formation of an abscess, while, if the vitality of the patient be feeble, the smallest invasion may end in the complete destruction of the system. This may be the reason why a dissecting wound produces a minute abscess in one person, an abscess with a slight fever in a second, and a fatal blood-poisoning in a third. The difference lies in the power of resistance, and not in the nature of the invaders.

The use of medicinal agents taken by the mouth or injected into the tissues and vessels has for its object the increase of the power of resistance, as when we combat erysipelas by the internal employment of chloride of iron.

The local applications, on the other hand, generally have for their object the destruction of the invading agents.

The local agent applied in anticipation may, however, have a two-fold effect; first to destroy or render inactive the atmospheric living agents, and next to preserve the vitality of the incised or lacerated surfaces, so that the invaders may be destroyed by the defensive fluid secreted by the living surfaces.

A stream of the aqueous solution of carbolic acid of the strength of 1 to 100, of mercuric bichloride of a strength of 1 to 1,000, or 1 to 10,000 does not necessarily destroy the spores of septic and pathogenic microbes, but it destroys the present activity of those which are in a developed and active condition. It at the same time preserves the moisture and the unimpaired condition of the exposed surfaces, so that the invading germs are immediately surrounded by a secretion of a strong character which invests the invading germs and digests them. A stream of pure water would have the same effect upon the incised or lacerated surface, only to be sure of its freedom from organic life it must have been recently boiled for more then thirty miuutes. Klein in his little book recently published,* states that distilled water becomes in a few hours full of septic microbes in an active developed state, ready to multiply and flourish when introduced

* Micro-organisms and Disease. McMillan. 1884.

into any substance furnishing oxygen, nitrogen, and hydrogen, *i. e.* any natural animal or vegetable substance.

There are numerous illustrations of the power of resistance of living tissues against organisms which are simply septic in their character.

It is probably rare that a hypodermic injection of any substance is made without introducing at the same time a bubble of air containing a colony of micro-organisms, either as germs or in a developed condition; yet the formation of an abscess or a more severe general septic poisoning is an exceedingly rare occurrence. These agents must be devoured as they are surrounded by a stronger vitality.

The introduction of air on a very large scale occurs after wounds connecting the respiratory passages with the surrounding connective tissue, and yet the air is generally absorbed without evil consequences.

However, if instead of common air it be loaded with the floating products of erysipelas, puerperal or other septic fever or hospital gangrene, the hypodermic injection might introduce an enemy of greater destructive force, capable of appropriating and living upon the surrounding cells and fixed tissues, the vitality of which it overmasters.

Again, if the patient is in a condition of very feeble vitality, the minute blood clot occasioned by the point of the needle may afford an insufficient resistance to the relatively superior vital force of the invading microbes, though only of the septic class.

In view of these facts and reasons, the most important consideration in relation to surgical (or accidental) wounds is the purity of the atmosphere, or its freedom from microbes, especially those of a *pathogenic* nature. The latter are very apt to be present in houses which have been contaminated by erysipelas and by those septic fevers which are attended by the presence of pus in a putrefactive condition, while the out-door air or the air of an apartment not used for dwelling purposes, is likely to have only those microbes which are capable of starting putrefaction in non-vital animal and vegetable substances.

The second most important consideration is the health of the patient, or his power of resistance to the ordinary septic influences which are almost everywhere present.

The power of medicines to increase the resistance is not here a proper subject to consider, suffice it to say, that a great consid-

eration is the neutralization of the latent malarial poison ready to develop on any occasion of depressed vitality.

The management of diet is of equal importance, but not in the scope of consideration to be entertained here. The diet which for the time secures the best state of health, or the management which secures a demand for nutriment and a capability of digestion and assimilation, are expressive of the end to be secured.

The third consideration is that of the local management of a wound—There are three things; (1.) to protect the surface from drying and consequent tendency to die and become the seat of septic changes. This is done by a spray or by irrigation, or by the presence of a clot which should not needlessly be wiped off until the time for the final dressing.

(2.) The presence, in the fluid of the spray or irrigation, of some agent which destroys or temporally neutralizes the floating organic substances in the atmosphere. It is probable that the best agent yet tried for the purpose, is an aqueous solution of mercuric bichloride, and, as the result of experience, a strength of 1 to 10,000 for a prolonged contact.

The agent can be applied without injury to the vitality of the exposed wound surfaces, and while too weak to destroy the vitality of the spores of pathogenic microbes, it is sufficiently strong to nullify their present activity and prevent the immediate production of their digestive soluble ferment. The substances to be applied to wounds to prevent subsequent septic development are boric acid and iodoform. The latter is capable of being introduced into a wound without interfering with union of the surfaces by the first intention.

The iodoform is ultimately disposed of along with the material of the coagulum which envelops it. The investment of the wound with borated cotton affords a material which retards or prevents putrefaction in the effusions and exudations escaping from the wounds by openings or through drainage tubes. The borated cotton receives these products and prevents their putrefaction, thus affording a material for a dry dressing which makes it practicable to subject a wound to dressings at infrequent times. The baking slowly of borated or sublimated cotton until it assumes a light brown color, is found to afford a dressing in which the exudations which have escaped from a wound and become dry do not putrefy.

For a wet dressing, there is nothing yet known superior to a

drip of carbolic acid of one *per cent.* strength, applied constantly or at times not more than 20 minutes apart, in order that the presence of the agent may be perpetual. This is incapale of destroying spores but is yet strong enough to prevent the activity or vital manifestation of the septic microbes, and is probably capable of suppressing the vital manifestations of those of a pathogenic character, or those having the power of producing specific diseases, as those of erysipelas, hospital gangrene and other diseases, many of which have not yet been carefully studied, while yet the applications are weak enough not to injure the surfaces to which they are applied.

It is not the purpose of this paper to go much into detail, but to indicate in a brief way, the advance of thought upon the subject, based upon the careful investigations which have proved beyond dispute the dependence of many diseased manifestations upon the presence of micro-organisms.

The conception of digestion, as the means by which micro-organisms are enabled to attack and live upon substances that go into decomposition in connection with their growth and multiplication, is further developed by Dr. Black in his book,* pp 50 & 85.

Quoting from Lister,† he states that this observer found that a few germs, of the species of bacterium found in the hydrant water of London, contained in a single drop of water, could not start decomposition, but a larger amount could. At the same time, the smallest amount of putrid material would start decomposition. The explanation approached by Lister and clearly stated by Dr. Black, is that in the detached state, a bacterium is not able to develop a ferment in sufficient amount or intensity to overcome the chemical union of the serum, but when introduced in sufficient number to unite their digestive products, or in a condition in which the individual organisms are already surrounded by their ferment, they are able to attack the serum, living upon it and multiplying in it.

This consideration has an important surgical relation. In this view, it is not necessary that an agent acting as an antiseptic should be capable of destroying the micro-organism. If it is capable of neutralizing the digestive ferment produced by the

* Formation of Poison's by micro-organism. Presley Blackiston, Son & Co., 1884.

† Transactions of the International Medical Congress, London, 1881.

attacking micro-organism, the development and multiplication of the microbe may be held in check until destroyed by the digestive action of the cells of the surface of the wound invaded.

The fact that spores will live in alcohol, and afterward thrive when planted in a good field, does not militate against the usefulness of alcohol as an antiseptic, however poor a disinfectant it may be. By way of reference to the alphabet of the subject, the facts known of the nature of the poisons evolved by micro-organisms imply that by their nature and their modes of action they may be arranged in three classes.

1. The local effects of a digestive fluid by which the cells attacked are paralyzed and then destroyed. When the invading organisms are circulating in the blood, they infiltrate the white blood corpuscles and destroy them. A period of incubation elapses between the invasion and a sufficient multiplication of the microbes to produce a manifest local disease or to affect the general health.

The superior vital force of the blood or tissues may arrest or destroy the invading agents. When unable to do this, the forces of resistance may yet establish a wall of limitation so that there may be only a local inflammation or a small abscess; and when the localization is less complete, the lymphatics going from the spot affected may become inflamed.

2. The production of a poisonous waste product, which, being taken up into the circulation, poisons in analogy with morphia and strychnia which alkaloids. in this view, may be classed as alkaloid waste products of the poppy and the strychnos.

The inoculation of such a poisonous waste product produces immediate disease without an intervening period of incubation.

Sepsin, the waste product of septic action, when filtered out from the microbes which produce it, immediately produces general disease when inoculated, though there is nothing living in it by which it can be multiplied or reproduced by the processes of cultivation. This impossibility of cultivation shows that the poison has been separated from the vital agents which have produced it.

The entrance of sepsin in sufficient quantity, whether generated in a wound or ulcer, or injected artificially, destroys life, but if insufficient for this, recovery takes place as in the case of other poisons.

Pathogenic poisons are those of special diseases which are

supposed to arise from microbes of peculiar species on one theory, or on another theory, such as are profoundly modified by the temperature and the food-media with which their growth and multiplication have been circumstanced.

These microbes are called by Klein pathogenic to distinguish them from microbes which produce only septic effects and which are called septic microbes. All these pathogenic microbes have a period of incubation, some longer and some shorter.

During this period of incubation, the invaders are living upon the tissues at the point of entrance, multiplying and extending, or if floating in the blood, they are attacking the white blood corpuscles in greater and greater number. According to their nature they produce different diseases.

Some cause a gangrene as they travel and are very local, until the system becomes attacked by septic poisoning from the septic decomposition of whatever is destroyed, while others diffuse themselves in the blood. Others, like the bacillus of tuberculosis and of active mycosis, lodge upon particular spots, multiplying and destroying the tissues.

The mode of poisoning by atmospheric micro-organisms which is most to be feared in surgery, is that of erysipelas, because the agents of this infection are more abundant in dwelling houses and hospitals and most difficult to eradicate. The micrococcus of erysipelas is extremely minute.

As quoted by Klein (*p. 48 of Micro-Organisms*) Feheleisen cultivated the micrococcus of erysipelas through fourteen generations, and with the last generation produced erysipelas on the ears of rabbits, and on some tumors and lupus ulcers of human patients, the application being made for the purpose of curing the local diseases.

Feheleisen found that a three *per cent.* solution of carbolic acid and a one *per cent.* solution of mercuric bichloride destroyed the vitality of this micrococcus.

It thus appears why a spray or irrigation of either of these agents upon a wound during the progress of its formation in the course of a surgical operation, is a protection against an erysipelatous contamination.

The treatment of microbes in order to destroy them or render them inactive is (1) by heat not less than 150° F. (71° C), and some of them require 300° F. (148° C), prolonged and repeated; (2) by disinfectants which destroy the germs of the dangerous

microbes, and by antiseptics which hold their development and activity in check without destroying them. An interesting illustration of this distinction is given by Dr. W. J. Miller, of Dundee, Scotland, in an article on contagium in the London Practitioner for Sept., 1884.

Dr. Dougal suspended the action of vaccine lymph by the incorporation of carbolic acid, but when, by exposure to the open air, the *antiseptic* had evaporated the lymph was found to have been preserved unimpaired. According to this and some other observations "Carbolic acid is not a disinfectant, not a destroyer of organic matter, but rather an antiseptic or preserver of organic matter, arresting and preventing putrescent and fermentive change, and suspending zymotic action for a time, leaving such matter unchanged after the volatilization of the antiseptic.

This distinction may be criticised, by saying that a strength of carbolic acid of sufficient intensity to hold back and paralyze the invaders, may be weak enough not to injure the organisms to be preserved. In the case of vaccine virus, it is not injured by a strength of 2½ *per cent.* though the putrefactive microbes are held in check. These microbes would quickly destroy the special contagium if not opposed by this or some other antiseptic. A stronger preparation of carbolic acid would destroy both invaders and defenders and be a disinfectant. A strength of ½ *per cent.* preserves bread pulp and ⅛ *per cent.* preserves broth and milk. Washing the hands in a 5 *per cent.* solution is thought to be the weakest solution capable of protecting the hands against receiving and imparting contagium, and this is far inferior to a solution of sulphurous acid. In the form of vapor, however, it is doubtful whether carbolic acid has any effect whatever on account of its great dilution.

All the experiments which have been made with carbolic acid vapor are negative.

Among the disinfectants, Dr. Miller (above quoted) considers sulphurous acid (from burning sulphur) the most valuable of all. Its vapor destroys every microbe, whether zymotic, septic or pathogenic.

Its gas permeates every crack in the walls of a room, and its solution is easily applicable to the surfaces of solid bodies. Its only objectionable feature is the difficulty of employing it in rooms while people are in them.

It is not necessary here to enumerate and compare even the

principal antiseptics and disinfectants. Chlorine, hydro chloric acid, iodine and bromine are powerful but difficult to manage.

Salicylic acid, boric acid, iodoform and mercuric oxydes and salts are excellent antiseptics for local application in the solid form, the choice among them being determined by circumstance and convenience.

AIR PURIFICATION.

We come now to another method of managing the subject. Taking a hint from the observations recently made in Paris, and quoted in the beginning of this paper upon the effect of rainy weather upon the number of microbes floating in the atmosphere, it occurs to ask, whether or not it is practicable to subject the air entering an operating room to the influence of artificial showers in order to precipitate to the ground the whole or the greater part of these enemies of surgery.

They are known to be heavier than the air because they entirely disappear from the air within a tight box which has been for several months in one position. This principle of rest is of no use to us, for the purification of the air of an operating room, by this means is impracticable.

The dry filtration by means of cotton or other substances to entangle and arrest the particulate substances floating in the air, is not practicable on account of the rapidity necessary in the entrance and exit of the air in order to displace the agents emanating from the occupants of the room, and those entering from without during the progress of an operation. If, however, we can cause the air entering the room to pass though several showers of water, we have an expedient which may entangle these objects and carry them to the ground.

The following is a description of such a device.

1. BASEMENT.—On the right hand is an entrance ventilator, twenty inches in diameter, in which a steam jet is made to play in order to infiltrate the entering air with very fine globules of water. (2) (3)

2. The air thus moistened passes in the direction of the arrows under a curtain or diaphragm reaching within fifteen inches of the floor. Under this curtain lies an iron pipe with numerous small holes drilled in the upper side, furnishing an interrupted spray under the curtain, and making it necessary for all the moving air to pass through this artificial shower near to the floor and into the next room warmed by the stove seen on the left hand of the diaphragm or screen. (5)

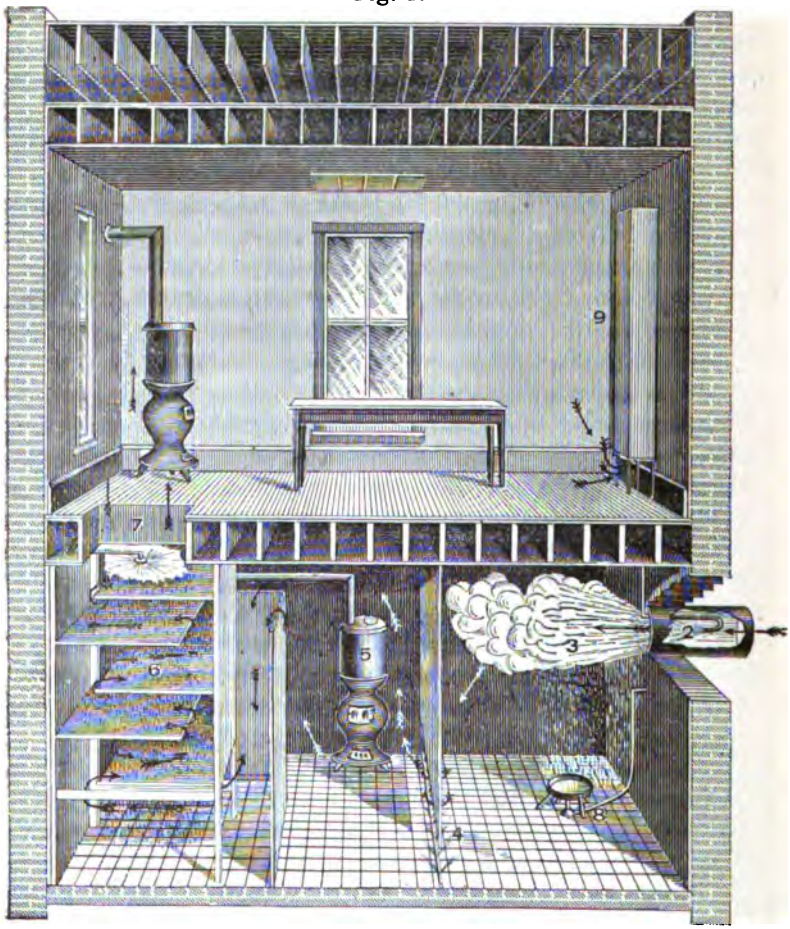
3. The air, thus warmed, passes through a filter, composed of shelves of thin muslin through which water is dripping. The warmed air

first passes over the top of a vertical screen to avoid the entrance of cold air, then under another vertical screen, and then back and forth between horizontal screens fifteen inches apart, dripping with water and finally through the spray which supplies this water. (6)

Thus there are three filtratons of the air, one by steam and two by water.

4. The air thus filtered a three times, emerges through an opening in the floor and goes to the top of the operating room above. [7]

Fig. 1.



Basement below and Operating Room above—Scale, one to sixty.

5. OPERATING ROOM.—The exit ventilation is seen on the opposite, or right hand side of the room, in the direction of the arrows.(9) This is effected by a movable shaft or box, made by

tacking muslin upon a frame, so that it can be set up against a window, with the upper sash pulled down to the necessary degree. The shaft can be shifted from one window to another to be free from the pressure of the wind, or on the opposite side, or from the wind. The arrangement thus far, is to get an atmosphere more pure than that outside, and through the frequent change of the air in the operating room, to get rid, to the greatest possible degree, of the contamination of the air (during the progress of an operation) by the emanations from surgeons, assistants, spectators, and the patient himself. This change is secured by the entrance of filtered air from the basement and the exit, from the floor of the operating room, of the air which has been the longest in the room, having descended gradually from the ceiling where the air is hottest, after having entered from the warming chamber below.

6. The floor of the operating room is made of yellow pine, and filled with paraffin to as great a depth as heated smoothing irons can drive it. By this means, all cracks are filled so as to be non-absorbable. Under this, lies a layer of tarred paper upon a common floor upon the joists. Between the joists, lies a layer of tarred paper upon the ceiling, the under side of which ceiling is painted, and lined with muslin while the paint is fresh. The muslin is again painted on the under side. The floor thus has seven layers, including the joists.

7. The operating room is free from closets where anything unclean can be hidden, and all wood work is either paraffined or painted.

8. There is no opening into any other room; about six feet of space intervening between the door of entrance and the nearest wall of the main building.

9. Before the use of the room for an operation involving the opening of a joint or the peritoneal cavity, it is intended that the rooms above and below shall be fumigated by sulphur burning in the basement. An iron pan for this purpose is figured in the cut(8) resting over a Bunsen burner for the combustion of sulphur. This is to be done for the destruction of any floating material of an organic character which may have gained entrance while the room may have been out of use.

It is found by trial that when the different sprays of water are going, one can remain very comfortably in the room above while sulphur is burning in the room below; being first absorbed

by the steam and the fumes having then to pass through the two different showers of water.

10. This building is the execution of a theory of combining the best known expedients for securing the best possible atmosphere for surgical operations, by excluding noxious agents and by destroying or expelling those which may have stolen in, or which may be introduce by the patients, or by the surgeon and his assistants and guests. It is supposed that enough air will enter and escape to change the whole volume of the air once in fifteen minutes. The exit draft coming from the floor will carry away most of the floating material.

11. The employment of a spray or douche of carbolic acid of the strength of 4 to 100, or of mercuric bichloride of 1 to 10,000, or other antiseptics, locally applied, though less necessary than in an ordinary room, may yet be resorted to in order not to omit any useful precaution.

12. The employment of solutions of carbolic acid, mercuric bichloride or permanganate of potash with the nail brush for cleaning the hands should be supplemental to the fixed provisions against septic and pathogenic particulate infection.

13. The bathing of the instruments in carbolized water, while this proceeding is incapable of disinfecting or destroying any germs which may adhere to them, may yet be useful in an antiseptic sense *i. e.* by destroying microbes in a developed state or freeing them from the supposed secretion by which they may be surrounded, and which may serve as their weapon of attack by which they digest or destroy the surfaces with which they come directly in contact.

14. A useful precaution on the part of the operator may be a bath and a change of clothing, the hair and head being dampened so that dust will not escape from them; and yet another precaution may be the wearing of gowns which will oblige all dust escaping from the clothing of the operator and his assistants to fall to the floor whence it may escape with the draft which carries out the lowest stratum of the air.

NOTE. The construction of an operating room on the principles here explained in a hospital already built, without erecting a detached building, would require that two rooms should be taken one above the other and if the upper one can have a skylight it will be of great advantage. The lower room might be in the basement with a shaft not less than (3) three feet in diameter extending to the upper room which might be under the roof for the advantage of a skylight. All communications must be closed by brick and mortar and an entrance opening made in the outer wall, the approach being secured by means of a platform on the outside of the building, so that it must be unavoidable to go into the open air for entrance and exit. The lower room should be equally shut off from communiation with other rooms of the building.

ARTICLE XVIII.

THE GENESIS OF ORGANIC SUBSTANCES. By HIRAM CHRISTOPHER, A. M., M. D., Professor of Chemistry in the St. Joseph Medical College, St. Joseph, Mo.

Organic compounds, though composed of inorganic matter, yet differ categorically and widely from inorganic substances. The latter have existed from the begining of matter; the former appeared at a time long subsequent. Organic substances are cotemporaneous with living beings, but differ as respects the mode of their genesis. Living organisms are the direct product of creative power; and since organic substances constitute their fabric, the organic constituent of the second individual of all species must arise with the reproduction and growth of individuals. The fact that species are continued by a process of reproduction, individual from individual, show that the various organic constituents of living organisms must arise with the growth of individuals, though cotemporaneous with the organisms in the first individuals of every species, yet in all those reproduced, the organic constituents appear only as the organism approaches completion. Hence all organic substances which have existed since creation have had their origin in living organisms. *Omnia ab vivo* is a fact of the organic kingdom of nature.

Organic substances are divided into several classes, based on their constituent elements, and range in complexity according to the number of elements that compose their molecules. There are but few elements, however, that form these molecules even the most complex. These are carbon, hydrogen, oxygen and nitrogen, with sulphur or phosphorus in the more complex. It is wonderful how many compounds are formed from these six atoms, and how many more are capable of being formed by changes effected with them by chemical agents in the laboratory of the chemist.

The number and kind of these six elements organic substances may contain distinguishes them into classes accordingly, so that a very distinct line of demarkation is drawn between such as contain two, or three, or more of these simple elements.

Hence the old distinction between organic substances of quarternary, ternary, and binary, examples of which we have in the albumens, in the saccharine and amylaceous substances, and in essential oils, otherwise known as nitrogenous, non-nitrogenous, and hydro-carbons. All these are found in plants, as parts of their structure and as products of the vital operations that take place in them.

Plants, like animals, are composed of living and non-living organic matter. The first is seen in the living cells that are found throughout the organism, and the second, in the tissues or substances connecting these togother in the living being. Living cells are also divided into distinct classes based on the radical difference in function. Both clases are found in plants; only one in animals, a fact that distinctly differentiates plants from animals. These clases of living cells are the food making and nutritive; the first found only in plants, whose special function is to convert inorganic matter into organic, or more correctly speaking, to form from simple elements, compounds in the molecules of which atoms sustain a relation to each other unknown and impossible in the inorganic realm of matter; compounds which are called organic, because found alone in living organisms. These food making cells are otherwise called chlorophyl cells, because of the gum substance that fills them, and exist especially in the leaves of plants. Into these cells the crude sap is conveyed. This sap holds dissolved in water carbon dioxide and ammonia or some nitrate, these substances, all inorganic, afford all the carbon, hydrogen, oxygen and nitrogen needed for their work which is the formation of food designed for the plant in which it is formed, and also for other living beings, both plant and animal. The food formed is called the elaborated sap, and is albuminoid in composition. This is the peculiar work of plants, and of the green parts of plants, the chlorophyl cells which are the life labratories of the world, where alone food for every living creature is found or produced.

The other class of cells is the nutritive, those whose function it is to form fabric out of the elaborated sap. The elaborated sap is a homogeneous compound—the pabulum of the plant and the source of all the products found in plants; products, acid, basic, and neutral as to chemical reaction, and nitrogenous, non-nitrogenous—quarternary, ternary, and binary as to chemical constitution. All these are produced from this homogeneous compound

by cell action, and gradually, doubtless, step by step, as the compounds descend in constitution toward inorganic compound, the carbon into oxides or hydrides, the hydrogen into water and ammonia, and the nitrogen into basic ammonia or saline nitrate. The sulphur and phosphorus may take either hydrogen or oxygen, and form corresponding compounds. These compounds are the ultimate destiny of the several elements of organic substances; dut none of these are formed in vegetable organisms. The lowest found in plants are the hydro-carbons, the fixed and volatile oils, but the declension thither is through the operations going on in living nutritive cells, differentiated, probably, to operate on different grades of organic substances.

The change effected in the crude sap whereby the elaborated sap is formed, occurs under the directive power of the vital agent operative in the living contents of the chlorophyl cells, aided by the influence of light and heat; and the changes effected by the nutritive cells whereby the numerous products of their action are formed, take place under the directive power of the same agent, followed, probably, by the action of some organic substance present, under the influence and agency of which further change takes place, of a chemical and not a vital character. The first change is the conversion of inorganic matter into organic, and the second, the production from a common substance of all the organic compounds found in plants. The genesis of the first is vital action in food making cells, aided by physical forces, and the genesis of the second, the same kind of action, in nutritive cells, aided in some cases, possibly, by chemico-vital agents.

The elaborated sap passes from the food producing cells into those parts of the plant organism where growth takes place, where nutritive cells exist. These are found in a tissue that lies between the wood and the bark, called the Cambium layer. From their action both wood and bark are formed, layer after layer, as each stratum of Cambium cells develop one or the other. These constitute the structure of the organism, to whose growth there is no theoretical limit. Besides these, however, there are numerous other substances found in plants, products of cell action, and of various composition from complex to simple, and classed as quarternary, ternary, and binary. These are of the nature of deposits, since they subserve no purpose in the economy of the plants. Whence are these and by what means formed?

I have said that elaborated sap is a homogeneous compound

and albuminoid as respects its chemical constitution. This excludes all temary and binary compounds, as sugar and the fixed and volatile oils. Were the elaborated sap only a mixture of the different series, we could suppose that these are simply separated from the elaborated sap by exosmose through specially adapted membranes or cell walls. But it is not a mixture of quarternary, ternary and binary compounds. Though to be such so far as the first two are concerned by Prof. Gray, it is an opinion without a foundation. Prof. Carpenter, a much higher authority than he on all such subjects, regards it as a homogeneous compound dissolved in water; and a proper view of the action of living cells of the leaf and of the processes of growth corroborates the opinion. As the elaborated sap is confessedly the food of the plant, the source when all the products found in the plant are derived; and since its only tissue—cellulose—can not have been formed in the leaf, and as such deposited from the circulating fluid, it is not probable that other ternaries were. But of this hereafter.

Of the quarternary or nitrogenous compounds found in plants we have two classes, one serving as the food of animals, which are primary foundations, and the other embracing all those compounds among which we place the alkaloids. The nutritious class are chemically neutral, and hence are nearer the living contents of cells in constitution, than are the nitrogenous compounds which have a chemical reaction, as the alkaloids of these substances. The latter are a lower grade as respects organic constitution, and hence are the products of a kind different from the nutritious albuminoids, a process vital, but more chemical in its products. The compounds of this class, containing nitrogen, are the products of the nutritive process, but belong to the category or nature of excretions, deposited in various parts of the plant, and not cast out as in animals, except in a few cases in the form of excedes. All these changes may be regarded as taking place, in what may be turned, for the sake of distinction, albumen-producing cells in which nutritious or neutral albumena are formed, and nitrogenous substances of chemical properties are thrown out. The genesis, therefore, of nitrogenous substances in plants must be from the elaborated sap by the action of living cells, and are, consequently, the products of their vital action.

The next lower class of organic compounds found in plants are the ternary, those containing but three simple elements, viz.,

carbon, hydrogen, and oxygen, among which we have sugar, starch, cellulose, gum, etc., some soluble and some insoluble in water. What is the genesis of these? The same as that of the nitrogenous class, the elaborated sap by cell action on this substance in the work of the organism of plants, supplemented in some cases by other agents of a different category.

That ternary compounds are formed from the quarternary sap seems to be generally regarded by physiologists as a fact. At least, such seems to be the necessary conclusion from the fact that there is sugar in the milk of the carnivora, and that "fat, sugar and lactic acid may be generated from the albuminous constituent of muscle." That sugar, and especially starch, exists in plants in great abundance is a well known fact, but how produced is not considered except in very general terms. It is sufficient, however, to know that it is produced from quarternary compounds, and, therefore, that its presence in the organism of plants is to be ascribed to cell action operating on albuminoid substances; and being a product of a lower grade, as respects chemical composition, it must be regarded as an excretion, as a product from material unused in and resulting from the action of living cells on albuminoid compounds circulating or contained in the elaborated sap. In the maple, the sugar is abundant when the sap begins to flow. The source of *this* sugar may not be the newly prepared elaborated sap, but the conversion of starch deposits into sugar by some albuminoid substance present in the plant, acting as diastase. This supposition seems necessary in order to account for its abundance, and for its disappearance from the flowing sap. After a time, the flowing sap of the maple does not contain sugar. What has become of it? As sugar, it does not seem to be capable of being converted into any tissue or growing part of the plant. Hence its change into an isomer that can be so used by the plant. Its conversion into dextrine would carry the substance one step nearer the composition of cellulose. The dextrine can be converted, and doubtless is converted, into cellulose by the action of some diastastic compound capable of effecting this conversion. This conversion can not be effected within the cell, because cellulose is insoluble; and as the change is without the cell, it must be effected by a catalytic influence. Thus, as sugar in solution passes through the intercellular spaces it is probably subjected to the action of diastase, whereby it passes into dextrine, and this into cellulose by the same agent.

The cellulose can not be formed in the leaf, because of its insolubility, nor in living cells for the same reason. Hence its production is from an isomer present in the circulating sap, thrown into it as the debris of cell action, and removed by a physical rather than a vital process, and converted into the insoluble cellulose by a chemical process, the action of diastase.

The production of cellulose in some such way as this is evidence that one ternary compound at least is not formed in the leaf, and hence is not a constituent of elaborated sap. It is possible for soluble ternaries, because of their solubility, to be found in the leaf with the quarternary albuminoid; but it is by no means probable. While cellulose is evidently not a constituent of elaborated sap, the isomer from which it is formed by a catalytic process, has a different genesis. If the isomer be formed in the leaf, where can we place a limit to their production? We had as well affirm that all the nitrogenous compounds found in plants are likewise products generated in the cells of plants; and if these, then all compounds of whatever series. The assumption that ternaries are present in the elaborated sap, and have the same genesis, assumes difficulties which are insuperable, and makes the assumption unreasonable when other facts are considered.

The aphis that feeds on the pabulous fluid that lies beneath the bark of the plants which it frequents, excretes a saccharine fluid. If we chew the bark of these plants we will detect no sugar. The genesis of the sugar in the aphis must arise from the nitrogenous fluid it derived from the plant and the operation of cells in its organism. Their nutritive action is attended by the excretion of sugar. Hence its source is a nitrogenous fluid—the elaborated sap of the plant; and this fact is an index to the process by which all ternaries are formed in living organisms.

[TO BE CONTINUED.]

ARTICLE XIX.

FRACTURE OF THE FEMUR.* By J. POGUE, M. D., of Edwardsville, Ill.

When Desault gave to the profession the principal of extension and counter-extension in the treatment of this fracture, he claimed to cure all fractures without shortening. So far as my experience goes, I believe in this principle, the only practical one for the treatment of this fracture. Yet I presume you have found his, and other apparatus, to fall far short of the success that ought to be expected of them.

In the spirit of self preservation, I am anxious to admit that shortening is the rule, and the contrary, the exception. Yet I have not found his and other methods of treatment so completely barren of perfect results, as all distinguished Surgeons would have us expect. I have found both in my own cases, and in those of others, a very fair percentage of fractures of the femur which have been, and are being treated without much if any shortening.

Hamilton says: (and there can be no better authority) that "In case of oblique fracture of the shaft of the femur, occuring in an adult, whose muscles are not paralized but which offer the usual resistance to extension and counter-extension, and where the ends of the bone have been completely displaced, no means have yet been devised by which an overlapping and consequent shortening of the broken bone can be prevented." He also says that the average shortening in simple fracture, when the best appliances and the utmost skill have been employed, is from one-half to three-fourth of an inch.

The American Medical Association of 1878 placed upon record a resolution, that shortening in cases of fracture of the long bones is the rule in practice, regardless of any means of treatment now in use.

Dr. Agnew gives us additional comfort by saying conclusively, that a fracture of the shaft of the thigh bone which is cured

*Read before the District Medical Society of Southern Illinois, Dec., 1884.

with one-half to three-fourths of an inch shortening is a *good* cure. And gives no room for complaint on the part of the patient, and that the surgeon who obtained this result, may walk among his professional brethern without being conscious of the least inferiority or want of skill in the management of this class of surgical injuries. Yet, it is no less the duty of the profession to account for, and to lessen the extent of this imperfection in surgery.

In estimating this shortening, are we to altogether attribute it to our inability to control muscular contraction? Might not some portion of it be due to a previous condition; in other words, did the patient have a short leg before fracture, or was it the result of our imperfect treatment? I refer to the well known inequality of the two limbs in uninjured persons.

A short time ago I was called to see a lady who had fallen upon her left hip; she insisted that it was broken, and although I could find no crepitus, and the position of the foot precluded the idea of a fracture within the capsule, yet I found by exact and repeated measurments, that the leg was about three-fourth of an inch shorter then its fellow. The result reached in a few days proved my diagnosis to be correct and that she had always had a short leg and was unconcious of the fact, although she had reached the age of fifty. Cox states that of fifty-four uninjured individuals, in six only he found the two legs symetrical, the difference between the two legs in the remaining forty-eight varying from one-eight to seven-eights of an inch. Again, Roberts in measuring seven skeleton showing no signs of having been broken, found the difference in each case varying from one-eight to three-fourth of an inch. As we are told to expect from one-third to one inch shortening in *all* fractures of this kind, I confess to feeling somewhat doubtful as to the exactness of our measurements.

How much of this shortening is due to previous condition, and how much to want of exact treatment? Of 433 cases of fracture of femur reported, in 54 there is absolutely no shortening, of the remaining 379 the shortening ranges all the way from one-third to one inch, 90 *per cent.* in adults and 40 *per cent.* in children, who knows how much these measurements are influenced by previous condition and how much the actual result of fracture. I can call to mind a good many cases, which either by reason of a previously too long a leg or by fortunate skill of treatment, are now with both legs of equal length. Again, I remem-

ber of many more cases, which, either by a previously too short a leg or want of skill in treatment, refuse to do us credit.

For the past ten or twelve years I have adopted a routine plan of treatment, not at all original, which plan, although somewhat complex, has given most satisfactory results.

Anything that is worth doing at all, is worth doing well, and this fracture, the treatment of which has reflected so little credit upon the profession, requires the greatest care in adjustment, and the most unremitting attention in the after-treatment, and with such care and attention, I think we can reasonably look for an approach to perfect success. The said routine plan referred to, is not different from other plans well known to you, other than in the fact that I avail myself of all plans by amalgamating them, so as to make them all subservient to my peculiar views. To make myself understood, I shall have to tax your patience by detailing in brief the different suggestions of well known surgeons.

Physick Desault consisting of an outside long splint, reaching from axilla to below foot, provided with a foot piece, with holes near axilla, also short inside splint from foot piece of long splint to perineum, and a perineal band.

Gross, a fracture box with moveable outside long and inside short splint, both with crutch handles, the long for the axilla, the short for the perineum.

Gilbert, an outside long splint, a screw attachment at foot piece, extension and counter-extension by adhesive straps at lower leg and at perineum.

Hodge, by attaching an iron to outside of long splint of Desault, making his counter-extension from the trunk by means of adhesive straps well secured to body over shoulder.

Smith, suspending the leg by the anterior wire splint easily made and easily bent to suit each case, when applied it is suspended by pulleys and cords to ceiling.

Buck fastens his counter-extension perineal band to head of bedstead, extension being secured by an elastic cord fastened to lower leg by adhesive plaster, and playing over a pulley attached to foot board, to which a weight is fastened, varying from five to twenty lbs. according to age of patient, the thigh at seat of fracture being supported by short splint with a bag of bran or sand to outside of leg to prevent rotation.

Swineburn's is simply a modification of Bucks, less secure but having the merit of being open for inspection.

Hagedorn's modification of Gibson's, a crutch end to two long splints resting under each axilla, whereby counter-extension is made from axilla, while extension is secured to foot board passing from both splints below foot.

DeMorgan, a long splint with pulleys at upper and lower end, a cross piece at foot, set at right angles, also provided with a pulley, is applied at opposite limb to foot, secured by adhesive plaster, to which an elastic cord is fastened, then running over pulley in cross piece, thence over pulley in lower end of long splint and fastened to middle and outside of same to an elastic door spring, a perineal band to which is tied a separate elastic cord brought over pulley at upper end of said long splint, this fastened in same way to door spring is tightened by means of a piece of perforated wood, similar to that used in tightening tent ropes, and then extension and counter-extension is accomplished.

Dr. Lewis makes valuable improvement upon Buck's plan, consisting in raising the foot of the bed, from four to six inches, thus producing counter-extension by the weight of the body, also the addition of an outside splint from chest to below foot with a cross piece to prevent rotation, extension, of course, being secured by a weight attached to foot and thrown over a pulley, as in Dr. Buck's method.

As to the double inclined plan of Sir John Bell, with its various modifications and improvements, the best of which, I believe, is Mac Intires as modified by Lister, we are all familier with and has proved satisfactory in many hands but never in my own.

The immovable apparatus, consisting of plaster, starch, etc., needs no description from me, in recent fractures this I am also afraid of, except with certain modifications. Plaster is undoubtedly the best material, and to be used should be carefully adjusted, with complete fixation of the joint both below and above the fracture, and then opened, immediately after its solidification, its whole length along the front of the limb, and again fastened by bandages, so as to be loosened or tightened upon the limb at the pleasure of the surgeon.

During my professional life, I have had an opportunity of testing most of the various methods of treatment with a fair proportion of success, with the exception of the double inclined plain, which either from lack of skill upon my part or the unmanageable disposition of my patients, did not do well; of the plain of DeMorgan, I have no personal knowledge, but with the other

various adjustments, that I have tried, I have had shortening about in the proportion with others, but with my present plan I think I have succeeded in effecting cures without shortening, at least with no perceptible shortening.

I require, first to be furnished with a good firm mattress thus securing a smooth unyielding surface placed, if possible, upon a single bedstead or lounge, as I desire to get near and around my patient. I apply an adhesive strap, two and one-half inches wide, extending from knee and under foot, placing block of wood in loop of same, another adhesive strap of same width is fastened to trunk and passed over shoulder, into the loop of which I place a block of wood also, both of said adhesive straps being well secured by additional straps of plaster both to leg and trunk. I next apply a perineal band, consisting of rubber tubing filled with bran, thus securing two points from which to make counter-extension using either jointly or seperately, if the perineum become excoriated or the band need cleaning, I can remove it for a time and depend wholly upon the counter-extension from the shoulder. Having accomplished this much, I next make extension and counter-extension by means of assistants, bringing the leg down somewhat longer than its fellow. While this is being done. I adjust my fractured bone. Apply my initial bandage, if fracture is in middle or lower thread. I next apply, over seat of fracture, short splints made from veneer, one-half cut through, covered with muslin pasted on, thus made capable of being wrapped around the limb and easily adjusting themselves to its inequalities, these I fasten by many tailed bandages. If, however, the fracture be in the upper third, or in the neighborhood of the joint, I apply plaster of paris extending from crest of ilium to the neighborhood of knee joint, just as we used to do in hip joint disease, thoroughly fixing the fracture and the joint, this plaster dressing I cut up after solidification, refastening again with many tailed bandages. Now, having previously provided myself with the long outside splint of Desault, to which I have attached the counter extension iron of Hodge, I proceed to adjust the same by fastening the perineal band to splint at axilla, the extension strap at foot to foot piece (having adjusted a tourniquet or screw to extend or lessen extension at will) fasten the shoulders to iron as directed by Hodge. Now, having my extension secure, I fasten the inside short splint of Desault by wood

screws to foot piece, fasten the entire dressing by many tailed bandages from foot to perineum, pass a napkin around both thighs and around trunk at the axilla, attach a Jenks fracture bed to the lounge or single bedstead, and my dressing is completed, there is much to be said against the complicated character of this dressing but I think the end justifies the means. I have so far had apparently complete success with it, if shortening existed it was so little that it was not observable. There is nothing to be said for it on the plea of its originality, for there is hardly a new idea in it, unless it be the idea of amalgamating the plans of others.

By using the many tailed bandage I have ready access for examination, and facilitating their loosening and tightening at will, veneering half cut through adapts itself perfectly to the inequalities of the limb and effectually prevents displacement, the plaster, in fractures of the upper bone, secures absolute quiesence of both fragments and joint. The use of two points of counter-extension enables me to rest one, the iron of Hodge attached to the long splint of Desault carries out the purposes of counter-extension and, in addition, effectually prevents the bending of the trunk upon the thighs in an effort to get up, which movement I believe to be a prolific source of displacement, and consequent shortening; and last, but not least, the slight extension of the broken leg longer than its fellow, will compensate for the stretching of the dressing. For if you fail to secure sufficient length at the first dressing, I think you will not accomplish it at any subsequent one, at least I never have been able to do so by reason of the abundance of plastic material thrown out among the tissues. I tie the legs together so as to prevent his moving for a few days, as I wish to keep him perfectly quiet, and thereby get the benefit in the direction of immediate union, if possible. The Jenks fracture bed speaks for itself, and is invaluable in the treatment.

The after treatment is of as much importance as the adjustment, I visit him if possible once or even twice a day, loosening or tightening my screw as necessity requires. Making repeated measurements, and giving him as much attention as I would to my most intricate case.

Clinical Reports from Private Practice.

ARTICLE XX.

OPERATION FOR REMOVAL OF A VAGINAL FIBRO-MYOMA. By J. C MOORE, Tekamah, Neb.

[Reported by Dr. Jno. D. Brabray]

Mrs. B—, aged 38, a slight delicate woman of nervous temperament, under the care of Dr. J. F. Tracy, of Craig, Nebraska, was suffering from a vaginal tumor of such size that the pressure set up a subacute inflammation of the bladder and caused a constant desire to evacuate the bowel; which, becoming so persistant, Dr. Tracy advised an operation for its removal and sent for Dr. J. C. Moore, of Tekamah, as consultant.

Dr. Moore's advice coincided with Dr. Tracy's and Sunday Jan. 11th, was the day set for the operation.

The history of the case given was, in substance, about as follows: Four years before, while attempting to lift a heavy tub of water, she felt something give way or snap, as she expressed it. This was followed by pains of a lancinating character, which lasted only a few hours when she maintained a recumbent posture. A month later she found that she was unable to remain on her feet for any length of time, and, upon examining herself, discovered a small lump or swelling just within the vulvar orifice. After consulting a physician who failed to give her relief, she devised a pad or pessary which was held in position by two perineal bands, and found that it answered the purpose nicely, maintaining the tumor in place and enabling her to attend to the lightest of her household duties.

About one year ago the tumor, which had remained stationary up to that time, began growing and Dr. Tracy was called in. He used every endeavor to check the growth but to no avail. From him it was learned that the tumor had more than doubled itself in the last six months.

Upon examination, Dr. Moore found a hard lobular body of the size and shape of the largest California pear. It was situated a little to the right of the median line and in the anterior sur-

face of the vagina, completely filling and distending the canal. It was covered by the mucous membrane of the vagina, which was tense and highly inflamed, with a tendency to slough in places. With much difficulty a sound was passed into the uterus which was found to be about 3½ inches in depth and very much anteverted. An examination of the cavity of the bladder proved it to have no connection with the tumor.

Dr. Moore pronounced it to be a fibro-myoma, the diagnosis proving correct.

On Sunday Jan. 11, Dr. Moore performed the operation, assisted by Drs. J. D. Peabody and M. J. Gilkerson, of Tekamah and J. F. Tracy, of Craig. Dr. Gilkerson giving the anæsthetic, equal parts of chloroform and ether from Squibb's Pharamacy. When fully anæsthetised, the patient was placed in the lithtomy position upon an ordinary kitchen table, the bladder and bowels having first been emptied.

The incision was made by a sharp-pointed bistoury and was about two inches in length. Two fingers of the left hand were passed in and the parts carefully dissected by their means and the handel of the scalpel. The tumor extended upwards and forwards, impinging upon the wall of the bladder, where it was attached by a few slight adhesions. A careful dissection succeeded in releasing the mass. Considerable hæmorrhage followed but was easily controlled (after tying two small arteries) by application of vinegar, alum and iron. The cavity was thoroughly irrigated and sponged with a carbolized solution 1 to 40, the same strength in which all sponges, instruments and hands had first been bathed. The wound was closed by the interrupted suture, four stitches being taken. The canal was packed with carbolized absorbent cotton after inserting a drainage tube; a pad of carbolized lint was secured over the vulva, the patient bathed and put to bed.

She experienced no unpleasant symptoms, except the nausea from the ether, which was aggravated by a stomach trouble of years standing. The temperature never reached higher than 101°.

The after treatment was simple. The urine was drawn by a catheter and the vagina washed out morning and evening with a carbolized solution of 1 to 60, and afterwards packed with carbolized cotton.

Liquid nourishment of beef tea, peptonized milk and wine-whey, was administered often and in small doses.

Her recovery was rapid, the tenesmus, cystitis and excessive irritability have entirely disappeared and the stomach is fast becoming stronger. Her strength is rapidly returning and she feels better than she has since she was injured.

Correspondence.

ARTICLE XXI.

Boston, Mass., February, 1885.

EDITOR JOURNAL:—

SPRAY IN OVARIOTOMY.

The following is an extract from a recent work by Dr. Emmet (Emmet's Principles and Practice of Gyæcology, p. 715.) "In this country I do not know of any prominent operator who employs carbolic acid spray." This statement implies that the writer is not persuaded of the value of the spray in ovariotomy. My own experience has led me to an opposite opinion. Indeed, I should not like to do a laparotomy for any purpose without antiseptic spray. I have been led to this conclusion by the results of one hundred and eighty-three cases of removal of cystic ovaries, of which I have lost only twenty-one, but more especialy by the results of the last one hundred of these cases, only ten of which were fatal, while thirty-eight were consecutively successful. I feel that to omit the antiseptic spray would be to deprive the patient of one of the ready and efficient elements of success. As I can hardly hope for much better results than those I have cited and being quite content to let well alone, I shall hesitate before disturbing my present plan of operation, by giving up a detail to which I attach much importance

John Homans.

161 Beacon St.

Denver, Col. Feb. 1885.

EDITOR JOURNAL:—

Would like to suggest, through the medium of your JOURNAL, the use of Tauret's Pelletierine in place of chloroform, male ferm, kousso etc., for Taenia.

The remedy is not bulky, being taken in one dose; is palatable and quite safe, the only disagreeable effect being a state of intoxication transient in character and not often excessive.

It never fails when the preliminaries and directions are followed strictly. Two hours at the most suffice to produce the worm entire and perfect.

Have had three successes in last three months and no failures at all. One case resisted male ferm.

Would likewise report three hydroceles cured by injection of Liq. Ergot Purif. (P. D. & Co.)

After tapping, ʒj to ʒij of ergot is thrown into sack, some escaping, some remaining and the sack rubbed thoroughly to bring every part in contact with the agent.

More than one year has elapsed since the first case was treated. The pain in two was considerable; the other escaped it entirely.

Have only treated these three cases. One was of twenty-five years standing and very large.

Am greatly pleased with it as it is certainly more pleasent and safe than iodine or incision.

W. B. Craig, M. D.

St. Louis Feb. 28th, 1885.

EDITOR JOURNAL:—

You will confer a favor on me by inserting in your JOURNAL a few lines, referring to an article which I published in Vol. 43, No. 6., and in vol. 44. No's 1 and 2, of the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, years 1882 to 1883.

The article in question was intended to disprove the active motions of the human fœtus in utero and to hold forth, that every change of location of the child in the womb is owing to a moving

power of the womb and that there are no active motions of the child while in utero.

I shall confine myself, however, chiefly to extracts from Dr. Tarnier's work on Obstetrics translated into English by R. J. Hess of Philadelphia and published in 1884 at the same place. This publication is thus two years later than that of my former article and I can say that I have not had access to this work on Obstetrics before January, 1885.

Dr. Tarnier, the distinguished obstetrician of Paris, when, on page 523 of the work above mentioned, he is speaking of uterine pains during pregnancy and where mentioning the *active motions of the child in utero as one of their causes*, adds in a note at the bottom of the page as follows:

Dr. Tyler Smith endeavors to show, in a very interesting manner, that the active motions of the fœtus in utero, amount to almost nothing, and that the sensations perceived by the mother and accoucheur, hitherto attributed to the muscular contractions of the child, result simply from *partial contractions of the muscular fibres of the uterus.* Notwithstanding the seductive character of the reasons adduced by Dr. Smith, we hold to the *general received opinion,* though entirely disposed to think that the veiws of the English accoucheur may be applicable to exceptional cases of which we are speaking."

I may be allowed to state that I never heard of Dr. Tyler Smith's memoir and think that it was not known to many in this country when my former article was published.

In Dr. Tarnier's work on obstetrics we also find the following clear expression on what constitutes my views on the motions of the child in utero. We read on page 414.

"The cerebro spinal system presides over none of those functions whose integrity is necessary to the maintainance of fœtal life, hœmatosis being provided for by the marternal blood, and circulation and nutrition being subject exclusively to the nerves of organic life."

Dr. Tarnier, furthermore says that the sensibility derived from the oxygenation of the blood of the fœtus by the mother, is necessary to produce *involuntary* movements of the fœtus, which latter, though possessing organs of animal life, has a vitality purely vegatative or organic. He distinctly says that the first pulmonary respiration of the child is extra-uterine, and that it is called into action by an excitement of the medulla ob-

longata, produced by the impression of the temperature of the surrounding air upon the skin of the new born child. For this impression to be effectual, however, he thinks it necessary that the sensation, produced from without in the child *should be perceived* by its central nervous organ.

Those that agree with Dr. Tarnier can find no difficulty in agreeing with me in saying that if the child's life in utero is purely organic and not animal, it can not perform in utero the animal function of self-locomotion. They can readily admit that if the first pulmonary respiration is extra-uterine there can be no active motions of the child in utero. Respiration and muscular voluntary motions do not only take place simultaneously but neither can continue independently of the other.

E. Benkendorf, M. D.
1510 Gratiot Str.

ARTICLE XXII.

Editorial Department.

LEGRAND ATWOOD, M. D., Editor. FRANK M. RUMBOLD, M. D., Publisher and Proprietor.

ASSOCIATE EDITORS:

H. CHRISTOPHER, A. M., M. D., St. Joseph, Mo. WM. A. BYRD, M. D., Quincy, Ill.
A. E. PRINCE, M. D., Jacksonville, Ill.

Original articles, correspondence, short reports of cases from private practice, solicited from all quarters.

Eastern Agents, J. H. Vail & Co., 21 Astor Place and 142 Eighth St., New York.

European Agents, Trübner & Co., 57 & 59 Ludgate Hill, London.

Terms $3.00 per annum, in advance.

THE STATE MEDICAL ASSOCIATION.

The attention of the profession is called to the fact that the State Medical Association, soon again to convene, is no longer a body composed of indiscriminate material, but that at the last session, by resolution, it was transformed into a representative organization composed only of delegates chosen and accredited by medical societies. This is a change worthy of commendation as it will eventuate in establishing a higher standard of excellence for the association and at the same time incite to the formation of additional Medical Societies throughout the State.

TO THE MEDICAL PROFESSION IN THE STATE OF MISSOURI.

The character and standing of the majority of medical men pursueing professional duties throughout the State of Missouri warrants the supposition that a lively interest is felt by them in the fate of the acts establishing a State Board of Health and regulating the Practice of Medicine. The avidity displayed by the Board in applying those provisions of the Practice act which have for their object the purification of the profession by refus-

ing certificates to advertising quacks, elicited a violent and combined opposition from these despicable gentry which was ably seconded by the newspaper press generally. Singularly enough, this unholy combination, the object of which is so reprehensible, engendered at the State Capitol an outspoken opposition to the reputable profession and those measures which protect its honor while they guard the health and life of the community at large.

Alone, the impudent demand of advertising charlatans for protection from the destructive powers conferred upon the State Board would have been unnoticed by the peoples representatives but seconded as it has been by the editors of most of the newspapers throughout the state, it has received a consideration it did not deserve, and threatens to influence legislation against the interests of decency and the welfare of the people. Why the newspapers should have sided with the quacks, both indigenous and migratory, is well understood though none the less censurable. The medical pretender is best enabled to fleece a gullible public by advertising and the newspapers reaping a rich harvest from this source prostitute their columns to the base purpose of sustaining quacks and quackery, though knowingly jeopardising thereby the health and lives of the people.

It is almost inconceivable that intelligent legislators in view of responsibility to constituencies will dare to stullify themselves by going upon record as enemies to the influential members of the medical profession and the welfare of the state, even though by so doing they obtain the favor and assistance of a venal but influential newspaper press. Yet to preserve ignorant, misguided or corrupt representatives from stupid, unwise or reprehensible conduct it will be well for physicians and medical societies, where they exist, to take immediate action influencing and instructing their respective representatives in relation to this matter. The time for action is limited and we trust that the suggestion herein contained will meet with a prompt and hearty response from every physician who desires the welfare of the profession and the good of the State.

Translations.

ARTICLE XXIII.

EXCERPTS FROM LATE FRENCH JOURNALS. By S. POLLAK, M. D. of St. Louis.

Translated for the JOURNAL.

TRAUMATIC TETANUS AFTER A SUBCUTANEOUS INJECTION OF QUININE, by Lurini. (*Raccoglitore Medica*).—The following case of tetanus is etiologically very interesting. The patient, after a long sojourn in the malarial districts of Tuscany, exhibited symptoms of malarial cachexia: increasing debility, sallow complexion, pain in limbs and lumbar region, cough and coryza. Pyrexia every evening. Quinine 1 grm. was administered, and he continued his journey in damp and rainy weather. The intensity of fever increased, with dilirium and bronchial catarrh. Quinine in small doses was continued; enlargement of spleen supervened, and the type of the fever was clearly tertian. The continued use of quinine caused a decided apyrexia, but also a general aggravation of all constitutional symptoms, especially a gastric catarrh and great anæmia. Not being able to retain the quinine *per orem* it was decided to inject it subcutaneously.

In 8 days, eight injections were made, of from 10—30 C grm. of chinin muriaticum, previously warmed, but which caused always considerable local irritation, the fever and gastric catarrh subsided, but only to return in a few days in an alarming degree. The place in the arm where the last injection was made became red, then œdematous which extended to the elbow, temperature 39.5° C. 4 grm chinine were injected into the rectum but not retained. Fever again subsided, but trismus set in during the night, so that swallowing became impossible, tetanus supervened, which could not be prevented by enema of chloral hydrate, and death ensued at midnight. The inflammatory symptoms in the arm had disappeared.

The chinin was found perfectly pure, free from strychnine and brucine, it was therefore not a *toxic* but a decided *traumatic* tetanus, of which hardly any instances are known. Tamasi Cru-

dilli, however, declared, it is not the first time that hypodermic injections of chinin have caused tetanus. Others challenged this assertion, and called in the *Gaz. degli Ospitali* for communications upon that subject, which was answered by Rossi and Bortolazzi, each had a case to report, the latter has used chinin subcutaneously in over one thousand cases.

ACTION OF IODOFORM IN DIABETES by Bozzolo, (*Arch. Ital de Biologie*).—After seeing the effect of iodoform in several cases of diabetes and other diseases, he made experiments which resulted that in doses of 0.05—0. 10 the quantity of sugar in the urine, as well as the quantity of urine considerably decreased, That the number of red blood corpuscles, as well as the hæmoglobin diminished, which is not caused by a destruction of the red blood corpuscles from the evolvement of iodine from the iodoform (the number of blood corpuscles were counted by the hæmometer of Hayem and Nachet, and the hæmoglobin was determined with the chromocytometer of Bizzozero) iodoform has a tendency to lower the arterial blood pressure.

A TOPIC APPLICATION AGAINST CORNS, by P. Vigier, (*France Medicale*).

℞ Salicylic acid.....1 gramme.
Alcoholic Extr. of canabis indica.....0 grm 50.
Alcohol (90 degrees).....1 grm.
Ether a (62 degrees).....2 grm 50.
Elastic collodion.....5 grm.

M. and put in well corked bottle. Apply with a brush or a match 3 times a day for about a week, when the whole corn can be easily wiped off.

ECZEMA OF THE HANDS, (CHAPPED HANDS) Van Harlinghen (*Ibid*).

℞ Oxyde of bismuth.....4 grm
Oleic acid.....30 grm.
White wax.....12 grm.
Vaseline.....36 grm.
Oil of roses.....2 drops.

M. S. Apply 3 times a day.

REDUCTION OF A STRANGULATED CONGENITAL INGUINAL HERNIA, WITHOUT OPENING THE SAC, CURE, by Pollailou, (*France Medicale*).—This happened in a lad of 14, who had a reducible inguinal hernia on the right side. It became strangulated and assumed a bilobal aspect. Attempts at taxis were fruitless. Kelo-

tomy was resorted to, the first incision disclosed a fibrous band which explained the bilobal appearance of the hernia; after division of the band the hernia became spherical, and was easily reduced without opening the sac. The testicle was ectopic, close to the external orifice of the canal, and in an atrophic condition. This proceeding was of questionable propriety, the possibility of returning a strangulated coil being very great.

It may be assumed, a congenital strangulated hernia with testicular ectopia is not reducible. A radical cure must be tried, trusses can not be worn in such cases. The testicle must either be brought down or removed entirely: The sac must always be opened, the contents examined. The ectopic testicle may yet be functionable, and the sperm may contain spermatozoides.

ARTICLE XXIV.

EXCERPTS FROM LATE GERMAN JOURNALS. By S. POLLAK, M. D., of St. Louis.

Translated for the JOURNAL.

USE OF COCAINE AS AN ANÆSTHETIC IN OPHTHALMOLOGY, lecture of Dr. Carl Koller (*Wiener Med. Blatter*).—The well known property of cocain, to anæsthetise the mucosa of the tongue, led him to try its effect upon the eye. Experiments made on animals resulted, that 3 drops of a 2 *per cent.* solution of cocainum muriaticum instilled into the conjunctival sac, did anæsthetise it as well as the cornea. The cornea could be lacerated with pins, endure induction currents, touches with nitrate of silver, or with cuprum sulphuricum without wincing; the cornea also remained painless, though highly inflamed, from the presence of foreign bodies. The following were the results in man:

1. In two minutes after instillation of a 2 *per cent.* solution of cocainum muriaticum, cornea and conjunctiva were completely anæsthetised, it could be seized with fixation forceps without causing sensation or any reflex-action. The anæsthesia lasted 7—10 minutes when it subsided into the normal condition.

2. Simultaneously with anæsthesia, the fissure of the lids

was considerably enlarged, probably due to the absence of sensation of cornea and conjunctiva.

3. The conjunctiva bulbi et palpebrarum became ischæmic.

4. In about 15 minutes after instillation, mydriasis began, which never was maximal, and began to decrease in 2 hours and subsided entirely in a few hours more. But during all this time the pupils reacted upon light or on convergence.

5. With the mydriasis came and went a feeble paresis of accommodation.

6. A continued instillation of cocaine every 5 minutes, the corneal anæsthesia could be considerably prolonged, the deeper tissues in and around the bulbus could be affected and operation on the same rendered painless.

7. The application of cocain never caused irritation.

DR. KONIGSTEIN made likewise experiments with cocaine in another clinic with results almost identical with those of Dr. Koller:

1. Anæsthesia. 2. Analgesia of conjunctiva and cornea. 3. Enlargement of the palpebral fissure with protrusion of the bulbus. 4. Anæmia of conjunctiva. 5. Mydriasis and feeble disturbance of accommodation. Cocaine is, therefore, indicated in all surgical operations of the eye, removal of foreign bodies, removal of chalazion, etc. As an analgeticum it can be given in all painful diseases of the eye, in burns, in painful erosions, in phlyctenular and pustular diseases, in photophobia und blepharospasm, in herpes zoster, in cyclitis. It can be furnished patients in order to make the application themselves.

The anaemising of the conjunctiva was effected in cases of severe iritis, and is therefore preferable to atropine.

Very valuable it is in exploration of the eye with the ophthalmoscope, on accounts of its limited mydriatic effect.

It may be assumed that cocaine acts upon the peripheric sensory nerves, but the enlargement of the palpebral fissure, the protrusion of the bulbus, moderate dilatation of the pupil speak for its effect upon the sympathetic, for these are all symptoms of irritation of the same, as well as the contraction of the blood vessels; the ganglion ciliare may be mentioned, into which merge the fibres of the trigeminus and sympatheticus.

PROF. REUSS recommends, to perform no operation on the

eye without cocaine. The effect was brilliant in extractions of cataract, also in atresia pupillæ.

Prof. Reuss experimented to give cocaine as mydriaticum in glaucoma, he found, when maximal myosis was caused by eserine, a 5 *per cent.* solution of cocaine did not dilate the pupil; but mydriasis in a cocainized eye, became promptly myotic after eserine. He recommends, therefore, to use cocaine in glaucoma. He performed iridectomy immediately after it. He speaks highly of it in cases of painful keratitis.

Drs. Jelinek, Schrötter, Störk, all of Vienna, use cocaine very extensively in diseases of larynx, pharynx and nose.

ENTEROCLYSMATA OF TANNIC ACID IN CHOLERA by Prof. Cantani of Naples. (*Ctrbl. f. d. Med. Wiss*).—The favorable results obtained by Cantani from the application of enteroclysmata in diseases of the intestines, led him to try the local treatment to the intestinal canal in cholera. In order to change the alkalinity of the contents of the intestines into acidity, and thus offer a resistance to the increase of the cholera bacilli, he used acid fluids for enemata. He avoided carbolic acid on account of its toxic effect; and tried the hydrochloric and tannic acids. The last he had found very valuable in acute and chronic intestinal catarrh, also in chronic ulceration of the bowels, also in infectious dysentery. In hundreds of cases, this treatment had proven satisfactory, hence he concluded to use it in the early stages of cholera, he can now recommend it earnestly. The formula is:

℞ Aq. calid.....2000,0.
Acidi tannici.....5—6—10,0.
Gum. arab.....50,0.
Laudanum.....gtt. 30—50.

In cases in which he did not succeed in applying the clysma 3—4 m. high, an ordinary clysopomp sufficed in acute cases.

The premonitory diarrhœa is often cut short by a single tannic acid enema of a temperature of 38° C; the characteristic cholera diarrhœa is instantly arrested for about 10—12 hours, when the clysma may be repeated after every evacuation. It will thus arrest the loss of serum, keep up the urinary secretion, induce reactive fever without typhoid symptoms, and thus ward off the stadium algidum.

PHYSIOLOGICAL BASIS FOR THE THEORY OF DIABETES MELLITUS, by Seegen (*Ztschr. f. kl. Med*).—Many experiments led to the

following results; Sugar is not a minimal part of the blood; it varies (in dogs) between 0.1—0.15 *per cent.*

Blood coming from the liver contains twice as much sugar as that flowing into the liver. The mean in 13 experiments he found to be in the blood of the vena porta 0.119 *per cent.*, in the blood of the hepatic vein 0.288 *per cent.* of sugar.

Measurement of the quantity of blood flowing from the portal vein in a given time, showed: that the transit of blood through the liver is very considerable. In 3 animals of 7—10—40 kilos, in 24 hours, coursed 179—223—433 litres of blood through the liver. Assuming, that in general, a litre takes up 0.1 *per cent.* of sugar in the liver in 24 hours, consequently 179—233—433 grm. of sugar were taken from the liver and carried on into the general circulation. In torpor of the liver the quantity of sugar in the blood decreases.

The following are brief conclusions:

1. The glycogenous function of the liver is a normal physiological act.

2. This normal glycogenous function, is one of the most important metamorphosis of tissues.

3. The material for the sugar formation, is introduced by the albuminate aliments.

4. It is more than probable, that the glycogen which is designated as liveramylum, takes no part in the formation of sugar.

ARTICLE XXV.

Department of the Respiratory Organs.

CONDUCTED BY

J. C. MULHALL, M. D., Physician to the Throat and Lung Department St. Louis Medical College Dispensary.

SIMPLE CHRONIC CATARRH OF THE NASO-PHARYNX.—Dr. Bresgen. *Proc. Inter. Cong. Copenhagen.* I make the following extracts. 1. the disease is one of inflammation. 2. Simple ozaena is not a disease, being but a symptom of atrophic rhinitis which itself is always preceded by hypertrophic rhinitis, a ter-

mination for which we have no adequate explanation. 3. Dry catarrh means a rhinitis so intense that the swelling obliterates the nasal spaces, as soon as the spaces are again established profuse secretion occurs. 4. Heredity plays an important part in making the air passages less resistant from without. 5. The fetor of atrophic rhinitis (simple ozaena) has never been properly explained. 6. Epistaxis, not traumatic, is always a symptom of a rhinitis. (This is by no means true.) 7. A large number of concomitant phenomena of catarrh, in regions seperated from the nose, are due to nerve relationship. 8. No treatment of headache, migraine or asthma can be considered scientific where no examination of the nasal fossae has been made. In all such cases, even where the nasal passages are open, especially in children, a careful naso-pharyngeal investigation should be made. 9. Nasal obstructions in children prevents the proper development of thorax and lungs, and hence paves the way for tubercle. 10. The diseases of the naso-pharyngeal cavities demand as much attention as those of eyes or ears and deserve that equal importance be attached to them.

It will be long before the general profession will concede this latter statement, or I should say will be well educated enough in the diagnosis and treatment of nasal diseases. How many are there who ever think of the nose, when investigating the source of a migraine. Every one knows that an elongated and adherent prepuce may cause chorea, but how many know that a hypertrophic nasal catarrh may do so.

NASAL ERECTILE TISSUES.—Zuckerkandl. *Wien. Med. Wochens.* 38. The author, whose work, "The Normal and Pathological Anatomy of the Nasal Cavities" with the 98 exquisite steel engravings, will forever connect his name with the subject, tells us that in the carnivora the internal nasal bones are very greatly developed, so that the olfactory and respiratory fissures are quite narrow, but that erectile tissue is not present; whilst in the herbivora the ethmoid is but little developed, but erectile tissue is found on the septum and floor as well as lower and middle turbinated bones. In man and monkey the ethmoid and turbinated bones are not greatly developed, whilst erectile tissue prevails over the free edge of the middle and entire surface of lower turbinated bone. This tissue is emptied by pressure and does not contain the direct entrance of arteries into its lacunae.

The author promises more, concerning the conditions of the erectile tissue during respiration, and conditions determining reflex erection of this tissue.

EPISTAXIS IN CHILDHOOD.—Rendu, Abstract in *Inter. Centralbl. für Laryngol.*—Very rare in the new born. From second year to puberty increasing frequency, at puberty quite common, either accompanying menstruation or vicarious. Three classes. 1st. Local causes, such as traumatism, polypi-rhinitis, etc. 2. Mechanical derangements of circulation, such as pertussis, heart troubles, etc. 3. Constitutional causes, such as occur in the prodromal stages of variola, erysipelas, typhus and especially measels; more seldom in scarlatina, the hæmorrhagic form excepted. In the closing stages of scarlatina, it stands in relation to kidney troubles. It is frequent in diphtheria without diphtheritic nasal process.

THE LARYNX AND STOMACH IN CHILDREN.—*Jahrb. für Kinderheilkunde.* Dr. Löri reports several cases where gastric symptoms, such as vomiting or eructations were dependant on trouble in the posterior wall of the larynx. An examination of the larynx in a boy 15, who had persistent vomiting for three weeks, disclosed a fish bone impacted in the post laryngeal wall, followed, on removal, by disappearance of all gastric symptoms. In another, the cure of a subacute inflammation in this region by local treatment, was likewise followed by cure of vomiting.

LARYNX IN TABES DORSALIS DUE TO SYPHILIS.—Fournier. *Gaz. des. Hopitaux* Nov. 20, 1884. The author, in his lecture, divides the disease into the ataxic stage, when the disease is general, and the preataxic, when it is limited to one organ. It is of every importance to recognize this latter, when a good prognosis may be given, for even in syphilitic tabes, when once the disease is general, cure cannot be accomplished. The pre-ataxic stage may last months or years. Amongst the organs thus first affected, the larynx suffered in six cases out of 211. Fournier gives details of how an organ is thus affected, only with regard to the bladder. I may state that in the case of the larynx, any perversion of nerve action may arise—such as spasm of glottis, paralysis of one or more laryngeal muscles—anæsthesia, hyperæsthesia or paræsthesia.

PALATE IN DIAGNOSIS.—*Atlanta Med. & Surg. Jour.* Dr. W. A. Lave has been guided for many years by the palate rather than the tongue as an aid in general diagnosis. It is a sure indicator of the presence of biliverdine in the blood, the yellow tinge being first and best seen here, and is, therefore, an absolute guide as to cholagogues. In the exanthemata majora, such as small pox, scarlatina, etc., the eruption makes its appearance here from 12 to 24 hours sooner than elsewhere. Plethora or anæmia or atony of the general system are indicated by its appearance. Alimentary tract troubles mark their approach and decline more plainly here than in the tongue.

COCAINE IN THE LARYNX. In my last report, I mentioned, on the authority of Cohen, that a four *per cent.* solution produced anæsthesia in the larynx but did not prevent reflex action there. Specialists in Vienna have ascertained that a 20 *per cent.* solution abolishes present reflex action, a condition of affairs which renders one of the most difficult procedures in surgery, comparatively very easy; namely, surgical operations in the larynx *per orem.*

TRACHEOTOMY IN CROUP.—*Med. News.* Phil. Dr. Winters, in a paper read before the N. Y. Academy of Medicine, concluded as follows: Tracheotomy, carefully made, involves, *per se*, little danger to life. It should be done early, as delay is dangerous. It is never too late to operate, however desperate the case. No patient who died after the operation would have lived had no operation been performed. Tracheotomy will soon be regarded as one of the minor operations of surgery.

Dr. Wright thought the entrance of a small quantity of blood in the trachea rather useful than otherwise, since it excited cough which was calculated to expel foreign matter from the trachea. Dr. Jacobi thought it a great mistake to divide the isthmus, when avoidable, and the entrance of any but a small quantity of blood in the trachea, as one of the most frequent causes of fatal broncho pneumonia. Another chief danger was to operate without an anæsthetic—chloroform being the best. Pneumonia was no contra-indication. He had lately thought it wise to delay operation till the mercuric bichloride had been given a fair trial. His percentage of recoveries without operation had, of late, been larger than ever before. Dr. J. Lewis Smith thought it bad

practice to wait till a positive diagnosis of pseudo membrane had been made. *Marked laryngeal stenosis* sometimes occurred without membrane, and, independant of its cause, should be the only guide as to time of operation. There were two classes. In one the larynx was involved early, and here were the cases for early operation. In the other, the larynx was not involved till the 5th or 8th day, and here were cases for late operation. In most of the latter he had prevented any serious involvement of the larynx by inhalations. Dr. Ripley had performed tracheotomy 110 times, and wished to be classed with the minority who considered the operation, generally speaking, easy and safe, but in young children with croup, a dangerous procedure. He felt sure that the large percentage of cases of recovery after early operation, resulted from unnecessary operation.

From all of which, it is evident that notwithstanding the thousands of operations reported and the volumes written concerning tracheotomy in croup that many questions concerning it are still debatable. Since nearly 20 *per cent.* of children with genuine laryngeal croup who receive all treatment except tracheotomy, die, it seems to me that the question of danger from the operation *per se*, should not be considered.

(How much more modern methods of treating croup, such as the bichloride or chloral treatment aided by tripsin sprays, may modify this death rate, is not yet known statistically.) Of this 20 *per cent.* who die, from 20 to 25 *per cent.* would have been saved by tracheotomy; again, according to reliable statistics. We are usually taught to treat the first laryngeal paroxysm with emetics, with tracheotomy in reserve when epigastric and clavicular depression becomes very great. Now though emetics sometimes save life, I feel confident that they may also do harm directly or indirectly, either by dislodging membrane which may go further down the trachea, or by producing greater laryngeal and tracheal congestion, or by exhausting the strength of the patient. The first appearance of laryngeal stenosis that has *the least permanence*, means that the glottis is very narrow, (for the glottis bears much narrowing without dyspnœa) that lung accidents are occurring, and, I think, is the indication for immediate tracheotomy.

LARYNGEAL STENOSIS AND THE LUNGS. *N. Y. Med. Record.*— At a meeting of N. Y. Path. Soc., Drs. Ripley and Van Santfoord

stated that they had recently performed post mortem in croup, which proved that laryngeal obstruction produced not pulmonary congestion as many believed, but on the contrary, anæmia and patches of emphysema. Dr. Jacobi stated that respiration was slow in laryngeal stenosis (the subject was croup) whilst Dr. Ripley stated that it was hurried.

That two observers, each with a large experience in croup, should be diametrically opposed on such a question is curious.

Both are right. It depends on the amount of stenosis, in my experience, as well as degree of fever, strength of patient, etc. With very great stenosis there is mechanical impossibility to hurried respiration, in croup as other conditions of laryngeal stenosis. With moderate stenosis, sufficient strength, and fever, the respiration is hurried.

Dr. J. Lewis Smith mentioned a prescription under the use of whose ingredients, he had seen membrane disappear quicker than by any other. It was

℞ Ext. Pancreatine.....3j.
Sodae Bicarb.....3ij.
M. 3j to 3vj tepid water frequently applied with a brush.

He thought the good was in the pancreatine not the alkali.

PROGNOSIS OF RESECTION OF THE VAGUS. Kocher. *Rev. Mens. de Laryngal* etc.—The author, during the extirpation of cancerous cervical glands, removed five centimetres of the left vagus. Till the 9th day no laryngeal or other symptoms were apparent. Then with attempted phonation the left cord became paralyzed—the voice hoarse. Kocher assumes that the anastomosing twigs from the right vagus and superior laryngeal were sufficient to innervate the left side of the larynx until the patient attempted to use the larynx when such reinforcement was no longer sufficient. In two other cases of the same nature, both of whom died of hæmorrhage, one 10 hours after and the other 4 days after operation, the loss of a portion of the vagus did not seem to have any effect beyond the laryngeal paralysis of the side operated on. (which in itself does not imperil existence.) He therefore argues that resection of the vagus is of no importance as far as life is concerned.

THE LARYNX IN THE DIAGNOSIS OF PULMONARY PHTHISIS. Dr. Max Schaeffer.—*Rev. Mens. de Laryngol.* Any means which

will enable us to diagnose pulmonary phthisis in its first stage, or rather in that stage in which as yet physical investigation reveals nothing, must be regarded as one of the most valuable advances in the field of medicine, since consumption is, practically, only curable in its first stage. Now, Dr. Schaeffer has in his last 310 cases of phthisis or suspected phthisis very attentively examined the larynx and he concludes that certain morbid signs there united to certain general symptoms will enable us often to predict pulmonary phthisis when the the most expert stethoscopist can find nothing abnormal within the chest. One group of cases had histories thus: A vague heaviness or rheumatic pains about the chest, disturbed respiratory rhythm, attended with mild catarrh of the larynx, with evening hoarseness or dry cough, with signs of *paresis of an adductor* or abductor with this peculiarity, that after disappearance under treatment of the catarrhal symptoms, the *paretic signs remained and resisted all treatment.* In one or more months afterwards, investigation revealed pulmonary phthisis on the same side as the laryngeal paresis.

In another group, with the same general symptoms, an infiltration of one false cord was seen—nothing more. Suddenly an hæmoptysis, from the lung on the side of the laryngeal tumefaction, and sooner or later stethoscopic signs of pulmonary consumption. I regret to state that Dr. Schaeffer does not state how many cases presented these pre-pulmonary signs in the larynx. I have very seldom seen a perfectly normal larynx in any case of advanced pulmonary phthisis, and I have examined the larynges of several hundred such patients. It is quite reasonable to presume that an organ so intimately associated with the lungs is likely to be more or less associated with their diseases, and often in their initial stage. What can be seen is easier to diagnose than the combined other senses can accomplish. Conceding the truth of so reliable an observer as Schaeffer, and no laryngoscopist will deny them at least a great leaver of truth, the scientific law follows, that the investigation of a suspected phthisis is incomplete (and that is hardly less than criminal, when we know how many cases may be cured in the first stage) without a skilled examination of the larynx.

CONGENITAL ABSCENCE OF ONE LUNG. *Rev. des. Mal. de l'enfance.*—Dr. Theremin states that out of 30,000 autopsies made at the Foundling Hospital in St. Petersburg, but two such cases

were found, one lived 10 days the other 3 months. Both were badly nourished from birth.

ASTHMA. *N. Y. Med. Record.*—Dr. Faulkner calls attention to the fact that he originated the plan of painting the course of the vagi in the neck with Churchills solution of iodine, to relieve an asthmatic paroxysm. He state that it will control the spasm but will not cure the condition.

THE ASPIRATOR IN HYDROTHORAX. *N. Y. M. Jour.*—Dr. E. D. Fergurson, after recalling cases in which effusion from idiopathic pleurisy was *completely* removed by aspiration, only to suffer relapses which eventuated in pyo-thorax and death, warns against the operation, unless dyspnœa compels it or absorption is long delayed. If the object be to relieve dyspnœ, Dr. F. advises to remove just enough to relieve this condition, one pint being usually sufficient. If the object be to stimulate absorption he has found the removal of about 8 ounces usually sufficient. Since adapting such a plan he has had no pyo-thorax follow. On the inflamed engorged pleura, with its exudate containing new-formed thin-walled blood vessels, there exists air pressure from within and fluid pressure from without. To remove at one sitting all fluid pressure is to produce increased vascular supply, rupture of these new vessels, elements favoring suppuration.

PLEURAL EFFUSIONS IN INFANTS. *N. Y. M. Record.*—Dr. J. Lewis Smith tells us that to differentiate pleural effusions from pneumonia in the very young is a difficult task, many cases of the former being mistaken for the latter, which he thinks accounts for the belief that pleurisy with effusion is rare in infants. The physical signs are such that if occuring in the adult pneumonia would always be diagnosed. Palpation and change of position to determine fluctuation of the line of dulness are of no value. The distance between the chest wall and lung in even a large effusion in infants is so small that a bronchial respiration is always heard. The lung in infants yields so quickly to effusion, that the side and the intercostals hardly bulge, and as the opposite side expands from compensatory breathing, measurements are of no aid. The exploring needle does not always clear doubt. Dr. Smith relies most on percussion. If the side be very dull, approaching flatness, no matter what the other

signs are, he regards the case as rather one of effusion than pneumonia.

COLD BATHS IN PNEUMONIA. Dr. Chaumier—*La France Medical.* The author concludes. 1. Cold baths present no danger. 2. They diminish pulse, respiration, temperature, dyspnœa and thirst. The *bruit de sauffle* caused by the fever disappears during their use. 3. Having not used the baths in very severe cases, he could not yet say whether they would diminish mortality. 4. In adults to procure permanent benefit, the baths should be given every 2 or 3 hours.

We are gradually growing less afraid of cold water, and have much to learn from hydrotherapy.

SEPTIC PNEUMONIA OF THE NEW BORN. Silbermann. *Deutsche Arch. für. Klin. Med.*—The author reports 11 cases. Ten of the mothers had puerperal fever. In five of the infants the attack commenced on the first day, in five more on the second day, and in one on the fifth day. Four had pneumonia alone, and seven had pleurisy in addition. Four were jaundiced.

STRICTURE OF OESOPHAGUS. Nicalaysen. *Intern. Centralblatt. für Laryngol, etc.*—Eight cases, six children, two adults, all from swallowing lye. In six, daily passage of sounds produced such dilation as to permit of easy swallowing. A child 4 years old died of double pneumonia during treatment, one adult, whose stricture admitted no instrument, was gastrostomized and died on the 8th day from pneumonia.

These cases are encouraging as far as they go only, for the history of such cases are seldom complete. There is an almost ever present tendency towards recurrence of stricture.

ARTICLE XXVI.

Department of Dermatology and Syphilis.

CONDUCTED BY

A. H. OHMANN-DUMESNIL, A.M., M.D., Professor of Dermatology and Syphilis, St. Louis College of Physicians and Surgeons, of St. Louis.

COCAINE IN DERMATOLOGY.—As is well known, the first experiments made with cocaine were upon the skin. It was demonstrated that it produced either anæsthesia or analgesia of the cutaneous structures, and then disappeared entirely out of sight until its effects upon the eye brought it once more prominently forwards, and assured for it a place which it is destined to maintain. There can be no doubt whatever, that if dermatology had been as far advanced when the first experiments with cocaine were made, as at the present day the scope of usefulness of the new (?) drug would have rapidly enlarged. It is being extensively employed in the surgery of the cornea and other parts of the eye, but bids fair to be employed as frequently in operative procedures confined to the skin and its underlying tissues. It has been repeatedly used for local anæsthesia in the opening of buboes, abscesses, for deep scarifications and lately when the curette is employed for the removal of epithelial or lupoid growths. It cannot fail to prove a most valuable adjuvant in all the many minor, painful operations so often performed by the dermatologist.

THE ETIOLOGICAL RELATIONS OF NERVOUS LESIONS TO CUTANEOUS DISEASES.—In an article on the above subject (*Brain*) Dr. W. Radcliffe Crocker draws the following conclusions among others:

That less serious consequences ensue from cutting off the nervous supply than from irritant or inflammatory lesions of the parts of the nervous system that affect the skin.

That the kind of eruption produced by the nervous system varies greatly, often without any evident reason, when the nervous defect is apparently the same in place and kind.

That the same eruption may owe its origin to any defective link in the nervous chain from the centre to the periphery.

That the same kind of nervous lesion that at one time appears to excite an eruption even more frequently produces no change in the skin whatever.

The lesions other than atrophy that result when innervation is abolished are often traceable to external injurious influences which the tissues, when unprotected by the nervous system, are unable to resist; but we know nothing of the conditions that determine the nature of the eruption or other skin defect when the nerve lesion is irritative, nor what it is that determines whether there shall be any eruption, or none at all. This uncertainty of effect suggests that the nervous influence is an indirect one.

The cerebral effect appears to vary according to whether its control over the vaso-motor centre is increased or decreased and to the secondary changes it induces in the cord. No localizing lesions have yet been found for its influence on the vaso-motor centre.

In the spinal cord the fibres that preside over the nutrition of the skin are bound up with the sensory.

Outside the cord the path is by the posterior roots, the spinal ganglia, and the sensory fibres, and lesions of any one or more of these may lead to changes in the skin.

ERUPTION ACCOMPANYING ALBUMINURIA.—Dr. E. Besnier, (*Journal de Med. et de Chir. Prat*), has observed cases presenting ecthymatous lesions of a cachectic type, but which resembled, to a considerable degree, simpler ones produced by pediculi corporis. The pruritic character of the lesions together with a total absence of parasites, has directed search in other channels and it has been observed as an accompaniment of nephritic lesions. In cases where albuminuria was marked, vomiting also accompanied as a symptom, all of which subsided as the renal condition improved.

JABORANDI IN URTICARIA.—Guéneau de Mussy has added another to the long list of remedies for the treatment of urticaria. He has successfully administered pills, containing powder of jaborandi, extract of guaiac and benzoate of lithia, to arthritic subjects. The question which naturally suggests itself is as to whether the urticaria did not depend upon the arthritic condi-

tion? As a natural sequence, if this be true, would not treatment directed solely to the arthritic condition have been accompanied by as rapid and total a disappearance of the cutaneous lesions?

A CASE OF RODENT ULCER.—In a highly interesting and exhaustive paper on the above subject, in the Cincinnati *Lancet & Clinic*, Dr. J. C. McMechan describes a patient aged 64 who in 1864 noticed a little dry, brown scale or pimple at the internal

Fig. 2.

Case of Rodent Ulcer.

This Cut kindly loaned by the Cincinnati Lancet & Clinic.

angle of the eye. It itched and he was in the habit of picking it, causing it to bleed freely. At the end of two years it was as large as a pea and the eyelid was slightly swollen. At the end of five years there was an opening as large as a bean. It had an indurated border and caused a burning sensation. In ten years it had involved both eyelids. At fifteen years the lids were gone, the eyeball atrophied. During the last year the ulcer has grown rapidly and July 2, 1884, it had destroyed the whole right eye and eyelids, entire cheek, part of the upper jaw, two-thirds

of the nose and covered a space at least five inches in diameter; no special pain. The progress of the disease was checked by the galvano cautery at various times; it was pronounced epithelioma.

XANTHOMA.—Dr. W. S. Thorne records, in the *Pacific Med. & Surgical Jour.*, the fact that he has observed for two years or more a patient suffering from xanthoma, in whom no trace of hepatic or any other disease is manifest. The patient is a female, aged 38, and the first manifestation of the disease appeared seven years ago, as small yellow macules upon both upper eye-lids. Now, nearly the entire surface of the lids is involved. There are a few detached patches upon the lower lids, and at the outer canthus of each eye. The spots are elevated, slightly tuberculated and no unusual sensation in them save an occasional itching. This area is slowly increasing. The reporter of this case concludes that the affection is fairly attributable to perverted local nutrition. We have had an opportunity of observing a similar case in a young man. The macules were single in number, somewhat elongated and situated one on each lower eye-lid, extending from the inner canthus about a quarter of an inch from the median line. They have been stationary for years and there even seems to be a tendency to spontaneous involution. No evidence of hepatic or other derangement, which might account for the trouble, was discovered. Besides, it may be well to state that in the case of xanthoma palpebrarum, hepatic troubles have never been found. It is generally in xanthoma multiplex that the bile pigments find their way in the blood just previous to the attack.

UNILATERAL HYPERIDROSIS.—A. Eulenberg is reported in the *Paris Médical* as having presented a patient, aged 38, who complained of weakness depending upon profuse sweats. He became so weak that he would fall asleep whilst working. The right side of the face was continually perspiring, while the left half was absolutely dry. The neck was involved, as also the right arm. The points corresponding to the ganglia of the great sympathetic along the neck, are painful on pressure, as also the right supra and infra-orbital nerves. The local temperature and color are normal. The same amount of activity of the sweat glands is observed in both the lower limbs, the abnormal process being confined to the region indicated above. Among

the many theories advanced to account for this, none seem to explain the condition satisfactorily, although there is no doubt that the case is neurotic in character.

TREATMENT OF PSORIASIS.—In a lecture on psoriasis delivered before the Hudson Co. Medical Society, of New Jersey, Dr. John V. Shoemaker, made the following remarks in regard to its treatment (*Med. & Surg. Reporter*): "In treating the majority of cases of psoriasis, the alimentary canal, the kidneys and the skin should be made active to remove from the system the elements that are keeping active the disease. By treating the exciting cause, pouring out the waste products in the manner just named and by the nutritive action of the arsenic, should it become necessary to administer it, psoriasis can be controlled. There is no specific for psoriasis, either in arsenic, the tincture of burdock seed, or chrysarobin, so highly recommended by Napier. The latter has a purgative action given internally, and will in that way cause the eruption to pale, just as any other purgative would do, administered for some time. In addition to the internal treatment, which is all important, and upon which I always place the most dependence in, hoping to permanently affect the disease, is the use of local means. The most important local means to use are baths: the hot air, the vapor, the simple water and the medicated. * * * * * Finally, the use of either chrysarobin or chrysophanic acid, one of the mercurials, tar, carbolic acid, naphthol and thymol in the form of a fixed dressing, or by the incorporation of one of them in a fatty substance and applied to the skin, often acts rapidly in removing the infiltration." We would add that traumaticin forms one of the best vehicles for most of the agents mentioned and would like to call attention to the fact that we have recently employed salicylic acid as a local dressing and found it to act efficiently and promptly on the lesions of psoriasis. It possesses the advantage over chrysarobin of not staining the tissues and, besides, it is easily procured almost anywhere. It does not act so much as an irritant; and, being fixed in chemical composition, the practitioner need not fear those sudden irritative outbreaks frequently observed whilst using chrysarobin.

COCAINE FOR VAGINISMUS.—Vaginismus sometimes becomes a serious trouble, not only because it prevents the introduction of

the speculum by the gynecologist, but also as being a bar to the accomplishment of marital duties. It is well known that the family physician is often consulted in reference to cases of the latter description, and often he finds himself unable to remedy the condition because he cannot even make a proper examination to discover any cause which may be present higher up. The consequence very often is a divided household, mutual reproaches and recriminations and sometimes, as a last recourse, the divorce court. Dr. Fraenkel, of Breslau, has observed among many other of the valuable properties of cocaine, that if a 20 *per cent.* solution (a weaker one might be used) be applied to the vaginal mucous membrane, this hyperæsthetic condition is destroyed and not only can a specular examination be made painless, but coitus is rendered pleasant instead of the torture it has proven to those females who attempt it, whilst they are the victims of vaginismus. We may expect to hear less complaints of "incompatibility of temper" in divorce courts, if this application of cocaine becomes, widespread; and peace may once more reign in some divided households.

ACQUIRED SYPHILIS WITHOUT A PRIMARY SORE.—Dr. Stenson Hooker relates a somewhat curious case in the *Lancet* and the subject of the disease being a physician, it becomes still more curious as he acquired syphilis and never observed the initial sclerosis. The patient, aged 30, has always been chaste (?) and probably acquired the disease from a patient. In the course of time a very severe form of syphilis developed, but yielded pretty readily to specific treatment. We are inclined to accept the story *cum grano salis.* Although no trace of a chancre could be discovered, there seems to have been no search inaugurated to discover any indurated ganglia which might have indicated the neighborhood of the initial lesion. Again, before recording such wonderful cases it would be well to be certain of such an occurrence, as we well know that Ricord held to the same opinion until he discovered that such a thing as the urethral and uterine chancre existed. Because the patient had no abrasion or other solution of continuity of the skin of the finger, we are not to conclude that he had no chancre. Again, it is not safe to accept without question the statement of a physician of 30 being chaste. A third contingency rises, which is that the primary sore may be so insignificant as to escape observation, but we are not to con-

clude from this that it never existed. Besides the entire history is not sufficiently explicit to base a positive opinion upon.

PULMONARY SYPHILIS.—Dr. Jno. Ferguson contributes an interesting article on this subject to the *Medical News* which observes editorially that if we are to credit clinical reports, syphilis of the lungs is by no means uncommon, whereas in the post-mortem room it is among the rarest of anatomical lesions. The syphilitic pneumonia of the new-born and gummata in the adult constitute almost the whole of the post-mortem lesions observed. How is the diagnosis made? By eliciting a more or less imperfect history of syphilis and observing the beneficial affects following the use of mercury and iodide of potassium. Rather, a *post hoc* method of arriving at a conclusion. Some authors scout the entire idea of pulmonary syphilis beyond those lesions clearly demonstrated on the cadaver, whilst others like Dr. Paul Lucas-Championnière (*Jour. de Méd. et de Chir. Prat.*) believe that such a state does exist and that it does not always consist merely of some pulmonary disease occuring in a syphilitic. There is no doubt whatever, that a phthisical subject acquiring syphilis will develop the tubercles more rapidly, nor that when this occurs, antisyphilitic treatment will be followed by improvement. The facts which are called attention to by the adherents of the syphilitic cause of these pulmonary lesions are that it is generally the central part of the lung which is attacked, that there is little or no fever, that the cough is usually dry and that there are no tubercle bacilli in it. Last month we mentioned the claim of Lustgarten, that he had discovered the bacillus of syphilis. If this be true, the value of this discovery will be immense, more especially in cases of suspected syphilis of the lung. The sputa will, no doubt, contain these organisms and the simple differentiation from those of tubercle will establish, clearly and beyond cavil, the diagnosis. But until this claim is well established, our knowledge of pulmonary lesions and their relation to syphilis will still remain, to a great degree, limited.

ARTICLE XXVII.

Department of Microscopy.

CONDUCTED BY

FRANK L. JAMES Ph. D., M. D., President St. Louis Society of Microscopists, of St. Louis.

THE DISCOVERER OF DIAPEDESIS.—One of the most singular things in this age of printing, of public libraries and of learned societies whose bulletins record, apparently for all time, the announcements of their members and correspondents, is the ease with which men get credit for inventions and discoveries already made and announced to the world by others. Perhaps I should put it another way, and say that the strange feature lies in the ease with which great and important discoveries, announced to the world by their authors, and embalmed in works easily accessible to every student, should sink into an oblivion so profound that when by chance they are rediscovered or resurrected they are hailed as entirely new additions to the sum-total of human knowledge. I have recently called attention in another periodical (The *National Druggist*) to instances of this phenomenon, citing, among other similar cases, that of the recent revival of rectal anæsthesia, which, originally devised by Pirogoff and fully described by him in a chapter of his well known and classical work on anæsthesia (*Recherches pratiques et physiologiques sur l'etherisation*,) soon fell into an oblivion so deep that when it was rediscovered by *Mollière* it was hailed as an entirely new discovery—only again to be abandoned by many distinguished surgeons who have given it a trial. The reason for this lapse, in the instance cited, is not hard to find—the method was faulty and dangerous and hence fell first into disuse and next into oblivion.

But no such reason can be assigned in the case to which attention was called at the meeting of December 30th, 1884, of the Academie des Sciences by M. Charcot.

Perhaps no physiological discovery of modern times is of

greater importance, especially to pathologists, than that of the phenomenon of diapedesis or the wandering of the blood corpuscles though the parietes of the sanguineous vessels. For some years it was customary to give the credit for the announcement of this important fact to Cohnheim, the author of so many important discoveries in histology and physiology. Later it was ascribed to Waller, with whom the honor has remained until the meeting mentioned above. On that day Prof. Charcot presented to the Academie a letter just received by him from Dr. Horvath, Professor at the University of Kasan, calling attention to the fact that in a work by Dutrochet, published in 1824, entitled "*Recherches anatomiques et physiologiques sur le structure interne des Animaux et des Vegetaux*, on page 214 occur these remarkable words:

"I have often witnessed individual blood corpuscles leave the circulatory torrent, stop and fix themselves in the organic tissue; I have even been a witness of this phenomenon, which I was far from suspecting, while observing under the microscope the circulation of the blood in the very transparent tails of young tadpoles. Some of the arteries make numerous curves in the transparent part of the tails of these tadpoles; these arteries are immediately continuous with the veins, uniting with them in such a manner as to leave no line of demarcation or no method of distinguishing between the arterial and venous circulation. The blood, the corpuscles of which are perfectly visable, moves in a current in which there is no stoppage, no interruption from its departure from the heart until its return to the same. Between the curves which the vessels form, there exists an exceedingly transparent tissue, in which may be seen many granulations of the same size as the blood corpuscles. In observing the movement of the blood I have often seen a single globule make its escape from the vessel by a lateral movement and wander off into the surrounding transparent tissue with a slowness of motion which was in striking contrast with the rapidity of the circulatory current from which it had just escaped. Soon afterwards the globule ceased to move and remained fixed in some part of the transparent tissue."

It would be impossible to describe diapedesis with more exactness than this author, who wrote nearly a half century before Cohnheim, has done in these few words.

THE CHARACTERISTIC MICROCOCCUS OF PURULENT ARTHRITIS OF CHILDHOOD is the subject of a paper in the *Berliner Klinische Wochenschrift* by Dr. Feodor Krause of the clinic of Prof. Volkman of which I make the following condensation:

The author describes the progress of the malady as follows—sudden apparition of fever and sharp pains in the large joints in a child apparently in the full enjoyment of health. The symptoms are not attributable to traumatic origin nor is there any known cause for them. The surrounding soft tissues are invaded by an intense phlegmonous inflammation. If the articulation is incised, or if it be allowed to progress until it opens spontaneously there escapes a considerable quantity of thick pus and of synovial fluid. On examining the edges of the wound, the synovial membrane is found to be tumefied and strongly hyperæmic. The cartilages are generally found to be intact. Such is the general history of fifty cases observed and tabulated by Volkmann. The disease runs a rapid course and generally leaves behind it neither fistula nor anchylosis. In rare cases where incisions were delayed there was a loss of a portion of the cartilagenous substance with subluxation.

The author then describes a micro-organism discovered by him in the pus which he compares with the pyogenic *strepto-coccus* of Rosenbach and the diphtheritic micro-coccus of Loeffler. The new micro organism differs from these in that it reproduces abscesses exactly similar to those of purulent arthritis when inoculated into animals, while the former do not produce any specific effects. Further experiment on the subject are promised at an early day.

THE JOURNALS.—The *American Monthly Microscopic Journal* and the *Microscope* for Febuary are at hand. Among the more interesting articles in the former, is a translation of the communication of Don Domingo Friere and M. Rebourgen of the *Academie* on the subject of preventive inoculation with the microbe of yellow fever—a theme which I treated in our January number. Another interesting article is one by Jubez Hogg on the Previvification of Infusion. The *Microscope* contains the second paper of its valuable series on the outlines of embriology. Although the authorship of these articles is not avowed I cannot help thinking that I recognize in them the hand of Prof. J. S. Kingsley, formerly editor of the *Science Record* and now editing

the new *Sandard Natural History*. Whoever the author be, he certainly understands his theme, and I must cordially recommend the series to the careful perusal of everyone interested in modern biological research. The subjects treated in the present number are Impregnation, Invagination and the formation of germinal layers. There is also a series of letters in the microscope of interest to the members of the American Society of Microscopists, inasmuch as they squelch most effectually the absurd claim of Prof. M. Calla, late president of the association, to the credit of having suggested and founded the "working department" which has proven the most valuable feature of the annual meeting of the Society—made so by suggestor and parent, Mr. E. H. Griffith, of Fairport, N. Y.

ARTICLE XXVIII.

Proceedings of Medical Societies.

ST. LOUIS MEDICAL SOCIETY.

Taken by the JOURNAL'S Stenographic Reporter.

Prepared by the Publication Committee of the Society.

SATURDAY, Jan. 17th, 1885.

DR. ATWOOD, President, in the chair.

Pathological Specimen.

DR. POLLAK, exhibiting a pathological specimen, gave the following history: A woman of 40, mother of 7 children and wife of a worthless husband, complained of great general debility, oppression in the pericardic region, pain in the right hypochondrium, cold feet, habitual constipation. No molimen for the last two months. No fever, but an accelerated pulse, a feeble *bruit de souffle* on moderate exercise. Appetite moderate, sleep good. A careful physical examination led only to negative results: Her very anæmic condition appeared to arise from a want of food; I gave her tonics and nutritious food. In a week she returned looking better, amenorrhœa and pericardial oppression still existing. The treatment was continued for several weeks. She

called the last time Dec. 13th, feeling decidedly better and looking much improved. On Dec. 27th she sent for and informed me that on the night of the 13th "something broke loose from her," that she had deen in bed ever since bleeding more or less constantly. I gave her fluid extract of ergot, 20 drops every three or four hours, to control the bleeding. I was with her on the morning of the 28th, and learned that after taking three doses of the ergot, she had experienced excruciating pain and had sent for a neighboring midwife, who took from her the objects which are before you now. I have kept the specimens in a mixture of alcohol, glycerine and water, equal parts. They are somewhat altered in appearance. They consist of two parts: one, a cylindrical cast, very brittle, about two inches long and one inch in diameter. Two, a spherical, nodulated, firm cyst with a cleft on one side, as if it had been rent open, exposing a small cup like cavity. On the outside is a portion of the amnion attached, that feels smooth; the other part feels quite rough. The interior of the cyst is devoid of a lining membrane, and nodulated. It would be interesting to determine: 1st, What it was that came from her a fortnight ago? Was it an embryo? 2nd, What is this tumor which was taken from her last night? Is it a cystic degenertion of the placenta, or is it a mole, or an hydatiform degeneration of the chorion? That this is a blighted ovum can scracely admit of a doubt. The sudden advent of bleeding from the womb preceded by a painless escape of some solid body, mystifies matters considerably. Was it a mere thrombus or an embryonic body? What is this cylindrical cast? A mere blood clot which shaped itself in the uterine cavity, or a proliferated decidua? Is this spherical solid body an hydatiform degeneration of the chorionic villi, or is it a degeneration of the parenchyma of the placenta? Admitting that pregnancy had existed three months, the size of the placenta would be out of all proportion for a three months embryo. Is the general disturbed condition of her health the cause or consequence of the diseased placenta.

DR. DEAN.—I think the smallor specimen is a blood clot and the larger one is undoubtedly a placenta. The umbilical vesicle is still very plain in the cup side of the larger portion; the embryo must have been extruded before this placenta came away.

DR. POLLAK.—Is it likely, Mr. President, that the embryo would pass off a fortnight before and the placenta be retained

without causing any septic symptoms; there was no fever and no sepsis.

Struma Fibroma Ossea.—Pathological Specimen.

DR. DEAN.—I have seen even much greater bodies retained for three or four weeks after the embryo came away without sepsis.

I have here a specimen. It is a struma fibroma ossea. The patient was a German woman of about 75 years. She was admitted to the hospital with senile debility and some pulmonary trouble. An examination showed that there was some irritation of the larynx and bronchi with bronchial expectoration. The women died on the 11th. The various forms of struma may all be grouped around a single point of departure from the normal thyroid gland, best illustrated, perhaps, by showing something of the development of the gland; it is developed from the hypoplast in the anterior wall of the throat as a hollow diverticulum, becomes segmented off and solid, and is divided or constricted into nearly two lobes and then the lobes are divided up into follicles and the glands remain as we know on the ventricle side of the larynx. Now it is an imitation of or a continuation of this process of division that is the beginning in all cases of struma; the cells in some parts of the follicle commence to divide, proliferating and usually project out in plugs which then branch off and afterwards are divided by strangulation so as to form new follicles. Then the colloid matter collects in these follicles and we have colloid struma and if the colloid matter becomes fluid we may have one complete cyst. So we may have the harder form, the fibroid, and the hard or fibrous struma. Afterwards regressive metamorphosis and calcification may take place as in this case. The danger of the struma is not usually in proportion to the size of the tumor, it depends, largely, upon its position. It is generally maintained, that if it be strictly anterior to the larynx that the harm is not as great, because of the arch standing upon the two arms bases, but that if it pushes around or across to the side it may press one arch so as to form a scabbard-like larynx, flattened so it may get back of the larynx and cause trouble in swallowing. Incidentally I had an opportunity to establish, quite prettily, the phenomenon that my friend Dr. Mulhall described in a case he brought here the other evening, in which, you will recollect, there were sounds synchronous with the action of the

heart which ceased when the larynx was held to one side. This case being one of an old person it was very easy to try the experiment, and before my assistants I moved, while the tumor was yet *in situ*, the trachea and hyoid bone separately and together and we could imitate exactly the sounds that we had in the patient before the society. To ascertain where they came from, we held the tongue forward and pressed it back and still we got the same sounds except when we pushed the tongue too far back, so that the pharynx would not serve as a sounding board. The sound was not quite the same when this was done. I cut across above the hyoid bone so that I could both see and feel into the pharynx and move the hyoid bone and larynx separately and in either case got the same sound. I then preforated the epiglottis and cut down through it to see if the position of the epiglottis would make any material difference and found that it would not. I then cut off the epiglottis and got the same sounds by moving the hyoid bone and by moving the larynx upon the cervical vertebrae. Then in order to ascertain whether it was the arytenoid cartilages I placed my finger in the larynx and on the cartilages and still moved it right and left and could get the same sounds; so that I am thoroughly satisfied that the sounds we heard the other evening were made by the moving of the larynx or hyoid bone or both, so as to separate and close a portion of the pharyngeal tube and mucous membrane on that side, as they closed and separated producing the peculiar crepitus that we heard, almost a metallic sound. You will recollect this women died of senile debility and although there was some obstruction of breathing it was not sufficient of itself to cause death. The trachea was flattened at the middle at the time that I saw her but it was slightly soft at the ends; of course the arch was wider so that the scabbard would be of the sword and not of the saber, being larger of course at the back. This specimen shows the condition of things; the œsophagus is also here. Her voice was feeble and the women herself was very feeble.

Hodgkins Disease.

DR. MOORE presented a patient with the following history: He is a man 31 years of age, a stockman, of active habits. Family history good. Was well up to about a year ago. No syphilis, no malaria. A year ago he noticed an enlargement of the glands in the posterior triangle of the neck on the right side, they slowly

increased until they appeared at the angle of the jaw on the same side. In August of the same year the axillary glands on the right side began to enlarge in the same manner. In due course of time the corresponding glands of the neck on the left side became involved also, then the axillary glands on the left side. The pulse on examination was found to be 100, the temperature 101°, there was a very harassing cough which he had attributed to pressure upon the larynx which prevented his sleeping and gave him considerable annoyance. He expectorates very little. No disease of the lungs, spleen or liver. A microscopical examination of the blood showed an increase of leucocytes, they were three or four times as numerous as the normal. The blood in appearance was, to the naked eye, somewhat lighter than good blood should have been. For sometime past he has had night sweats, and in the last eight or ten months he has lost about 20 pounds of flesh. He had taken arsenic internally at various times, but no longer than two weeks at a time; but in those two weeks the swelling would diminish. I put him on arsenic and cod liver oil and he has improved.

I would like to have the opinion of the members of the society as to the case.

DR. MULHALL.—There is, I think, an enlargement of the spleen in this case. This together with an increase of the white blood corpuscles, and enlargement of the glands of the body, form a group of symptoms which are only associated with Hodgkin's disease, lymphadenoma or lympho-sarcomatosis. Although there are night sweats there is no suppuration present. His lungs and heart are healthy. The history of this case shows that he has got better and worse at different times, that is the history of this disease; the disease improves sometimes even without medication by placing the patient under good hygienic conditions. But the remedy of all remedies which we find to be beneficial in this disease is arsenic. It would hardly be confounded with the ordinary strumous glands, it would not come at the age of this man. The one disease with which we would perhaps be apt to confound it is syphilis. As far as the patient's observation goes this is not the case, and the symptoms exclude the diagnosing syphilis.

DR. MOORE.—I did not discover enlargement of the spleen

but the doctor think there is and possibly Dr. Dean thinks there is an enlargement.

DR. DEAN.—A little.

DR. MOORE.—I have diagnosticated lymphadenosis, and if any one present has tried arsenic hypodermatically as compared with the internal administration of it, I would like to have the benefit of his opinion as to its greater efficacy. A previous hypodermic medication of arsenic produced irritation of the parts and sleeplessness, so that he come to the conclusion that it was better to suffer with the disease than die from the arsenic insomnia. He was obliged to walk the floor night after night and it reduced his strength very rapidly. When he took it internally it reduced the size of the glands notwithstanding that he only took it for two weeks at a time. He seems to be very susceptible to the influence of arsenic, ten minims three times a day will produce a constitutional effect within two weeks, and he would stop the administration of it as these symptoms would appear. Fowler's solution was used in this case.

DR. ATWOOD.—Have you made any local application to the tumors?

DR. MOORE.—At present I have advised the use of mercurial ointment to the glands more for the friction than for any specific effect. Some writers say that friction and compression give better results in the reduction than anything else.

DR. LUTZ.—I have nothing to add to what has been said except this observation, which I made in common with quite a number of gentlemen, that there is a skin eruption which seems to be something more than the result of scratching, a number of the eruptions look very much like incipient mucous patches. The patient's history may not include, so far as he knows, a primary sore or a manifestation of any kind of syphilis, yet we well know that it does not necessarily exclude the fact that he might have had syphilis, and if you add to this fact that he has never been placed on anti-syphilitic treatment it strikes me that perhaps in addition to the arsenic the administration of mercury conbined with the iodides would indicate a good method of treatment. To be definite as to the nature of this disease I believe that the patient could not be harmed by subjecting him to a thorough and systematic anti-syphilitic course. We know that the administration of mercury in small doses is, at least theoretically, productive of an increased number of red blood corpuscles, and so far as the

neoplasms are concerned, iodide could but be beneficial so far as their reduction in size is concerned even though the original cause were not syphilis. I would be inclined to give this man instead of Fowler's solution Donevan's solution of arsenic combined with mercury and the iodides.

DR. DEAN.—The case doesn't strike me as being a typical syphilitic case. However, whatever the source be, if it be multiple lymphadenosis they are very symetrical certainly, and it seems that the poison has passed from gland to gland. I think that irrespective of the theory of syphilis it would be well, especially as arsenic does not agree with the patient, to try the iodide of potassium, and I would try Donevan's solution. The gentleman says the itching is intense, which again would indicate that probably the condition is not syphilitic.

DR. MOORE insisted that the patient had improved every time that he had taken arsenic but that he has not continued its use sufficiently long. It was on account of the good results obtained previously by the arsenic that the remedy was employed again.

DR. DEAN asked the doctor how much of the redness existed previous to using the mercurial ointment.

DR. MOORE.—There was some redness there but not much.

DR. DEAN.—I though from the appearance of the tumors that the tumors might be also on the thoracic side, especially since Dr. Mulhall had found dulness of the chest in that region.

DR. MULHALL affirmed that there was dulness and thought that the thoracic glands might be involved.

SATURDAY, Jan. 24th, 1885.

DR. ATWOOD, President, in the Chair.

Cholera in St. Louis.

DR. POLLAK.—Mr. President, I understand that they had a case of cholera at the City Hospital last week. At least I infer that was the case from what I saw in the Chicago papers and the New York *Tribume*, which gives Dr. Dean the credit of having found a case of genuine cholera bacilli. Dr. Dean is here and I would like to hear about it.

DR. DEAN.—I have not seen the account in the papers, and what Dr. Pollak has said about it is all I know concerning the publications. I had a case at the Hospital, and not knowing,

from the symptoms, what else to call it, I called it cholera nostras. If it had been the case of a child I should have called it cholera infantum. If it had been in a season of cholera, I should have called it cholera. Nothing has ever come from me to the papers concerning it.

While I have no doubt this was a case of cholera nostras, I do not think it had anything of the character of Asiatic cholera. It was not of the nature of epidemic cholera. I would say that some of the symptoms were comparatively mild in comparison with those I have seen of cholera—and I have seen a great deal of it, as some of you know, in the epidemics of 1866 and 1877. I think I am a pretty good judge of what cholera is.

DR. DUDLEY.—Did the patient live or die?

DR. DEAN.—The patient died; the man was brought to us under suspicious circumstances. It is possible we may have buried other men that were as badly off as this man without paying any particular attention to the case, not having our attention called to it in the manner that it was to this case. There are cases brought in to the Hospital, sometimes 20 to 30 during the night, and unless our attention is called to them specifically they may escape our observation. This man, after he was brought in, recovered consciousness sufficiently to state that he had been in the United States some eight years. He had been in New York two months. I learned from friends of his that he had been to New York and went from there to New Orleans and came from there here. He came here Friday and died on Sunday. The account of him was that he was as well as usual in the morning and at 9 o'clock, or about that time, he was feeling badly, and when I went to his room I found him purging and vomiting. He had been sent to the hospital as soon as it could be done after he was taken sick. He lived only two hours. Death ensued so quickly that it was impossible to determine whether there was a suppression of urine or not. A good many of the symptoms of this case may have resulted from cold, the man having been in a cold room before he was brought to the Hospital. Dr. Bremer was notified by me of the case, because I thought it of some interest and he took some of the dejecta and examined them under the microscope and he may be able to tell you what he saw.

DR. DUDLEY.—What do I understand was the condition of this man for eight years?

DR. DEAN.—He had been a well man; he had been a pack-peddler, I believe.

DR. DUDLEY.—Had he any chronic disease?

DR. DEAN.—No sir; I examined the organs after death with the exception of the brain and I found them all in a normal condition.

DR. DUDLEY.—Do you mean to say he had been in the United States eight years.

DR. DEAN.—That is what was told me; he told me he was two months from New York, as I understood him; but his friends and members of the Hebrew Society who knew him, said that he went from New York to New Orleans recently and he got to this city last Friday week, being brought to us on Sunday. I do not think there is anything alarming in this case at all; it was not of an epidemic character, and is quite different from what is known as Asiatic cholera.

DR. LOVE.—In this case it seems to me that before giving out such a diagnosis, particularly in a time alarm may be created, we ought to take into consideration all the superinducing causes. In this connection I will draw attention to the fact that these cases have occurred during a period of extreme cold. It is suggested to my mind that some conditions that explain certain cases that have occurred in my observation at intervals would explain this one. I can recollect of some four or five cases at intervals during the past few years like this. The locality where those cases were was in the neighborhood of the Compton Avenue sewer district. I recollect one man of about 50 to whom I was called last Tuesday, who came very near dying with all the symptoms of cholera. I remember another case of a man who lived on Valley Avenue, now Leonard Avenue, who died in collapse with many of the symptoms that might suggest cholera. I bear in mind a family that lived on Channing Avenue near the Manchester Road where all died with vomiting, purging and collapse. My opinion at that time in each individual case was that it was sewer-gas poisoning; that was the only explanation. The whole neighborhood around there is badly drained; the entire sewerage of the north-western part of the city centers there, just south of Manchester Road and empties into the open space. I can say that all the bad cases, not only those I have mentioned, but all the bad or fatal cases of diphtheria have occured near this Manchester Road and Compton Avenue sewer district. I

think in each case it was during a period of cold when there was poor ventilation in the houses; I can see that if these cases had probably occurred during cholera times they might have been pronounced cases of cholera. As an illustration as to how we may jump at conclusions in regard to cholera I recall some years ago, in 1873, during the cholera times here when there were patients brought into the City Hospital in quite large numbers, that one man was brought in during the night with others and assigned to the cholera ward because he was suffering with vomiting and colic. The next morning a more thorough examination of this case developed a strangulated hernia. He was taken out of the cholera ward. He was assigned there by the night watch man; but several hours had elapsed before he was taken away. So that we see that in cholera times conclusions may be jumped at too hastily I think. I simply suggest that possibly the explanations of a previous case which occurred in my experience might explain these cases that are referred to as cholera, though I agree with Dr. Dean that in cases of this character, occurring at any time, with those symptoms should be called cholera.

DR. DEAN.—I would ask Dr. Love what report he made to the health office of the cases that died?

DR. LOVE.—I think, probably, I reported them as acute gastro-enteritis. One of the cases to which I have referred, where an entire family died, resulted in some investigation by the Coroner; there was a very eccentric and peculiar train of circumstances attending it. The investigation did not bring out anything of a criminal character; they were cases of acute gastro-enteritis.

DR. DUDLEY.—I understand that Dr. Bremer has seen this case and I would request him to give us some informatien upon the subject.

DR. BREMER.—I had an opportunity of examining the dejecta of both of these cases under the microscope. One was brought to me by Dr. Dorsett—and I am very thankful to him for the trouble he has taken in that respect. These dejecta had the usual appearance of rice-water discharges, the same as cholera stools. On examination, I found there were little minute threads of epithelium of the intestinal tract and the fluid resembled a conglomeration of thick and rather voluminous bacilli. Of course, I hunted for the comma bacillus but did not find one, although I made, I think, about 30 or 40 preparations; so that I believe that the idea of cholera is to be excluded from this case

altogether. The other case which occurred at the City Hospital is not one of cholera either. Nobody has said that it was. I examined that too, and after I had examined it superficially at Dr. Dean's office I took it home for further examination and did not find any bacillus, although I took great pains in the examination. In my examinations I followed out the directions given by Koch as carefully as possible. I had a case in 1874 or 1875, I think, which occurred in the winter; it was a case that reminds me very much of Dr. Dean's. It was that of a laborer returning from the South where he had been working. He came back and arrived on a very cold day and was taken with vomiting and diarrhœa and died within 36 hours. It struck me then that this might be a case of poisoning. If there had been any rumor of cholera here, of course I would have thought it a case of cholera. But there being no cholera within the United States nor in Europe, for that matter, I thought it a case of poisoning. I am inclined to look upon these in the manner that Dr. Love does with some modification. I believe there is a nervous centre which affects the movements of the bowels. We see that before a battle there are a great many instances were soldiers are taken with very violent diarrhœa; and these diarrhœas have all the symptoms and character of cholera. They discharge thin and watery matter like rice-water but they do not die from it; possibly some might die from shock but I never heard of any such case. Now it may be that not only emotion but also a very high or a very low degree of temperature can so impress the nervous centre as to be productive of the cholera diarrhœa, especially if the individual be weakened by unfavorable hygienic conditions and bad food. Such seems to have been the case with Dr. Dean's patient.

DR. SCOTT.—The experience related here seems to point out the idea of the nervous centre having a certain influence on the bowels. We all know that there are instances such as have been related here where soldiers going into battle are apt to have these cholera diarrhœas; not only of that but also it has an effect upon the urine and bladder as well. During an epidemic of cholera we all know what the influence of fear is upon persons in the neighborhood of a patient that dies of that disease. I have now in my mind the case of a lady who did not witness but heard of the death of one of her neighbors from cholera and within two hours afterwards she was taken with the symptoms of chol-

era–diarrhœa and vomiting—and in two more hours was dead. This cholera diarrhœa came on and ran into collapse of which she died. Fear has a great deal to do with it. We all know, who have had any experience in cholera, that we must recognize the effect that these emotions have upon the nervous centres. I think it is well to sustain our patients in all the whimsicalities that they take up during times of cholera. For instance, one of my patients said to me during a period of cholera, "If I put sulphur in my boots I do not think I will have cholera." I said if you put sulphur in your boots you will not have cholera; because as long as a man feels that he is doing something to ward off the disease it keeps off the influence of fear and we may thereby save the person. I have never undertaken, during an epidemic of cholera, to upset a man's theories or anything of that kind, though I recognize there is nothing in it. I am very glad to hear Dr. Bremer say, that after a very thorough examination of the dejecta in this case, he found no comma bacillus, which Dr. Koch says is characteristic of cholera. I myself confess I have been one of the investigators of Koch's theory of comma bacillus, and I have had some doubt as to its correctness, that the bacilli were the cause of the disease. That there may exist such a thing in cholera I have no doubt; but that it exclusively belongs to the cholera I had considerable doubt until I read Dr. Koch's last article. Since that, I am somewhat more inclined to believe that comma bacillus does exist in cholera and perhaps in cholera alone. If there had been found comma bacillus in this case I should have been very much inclined to believe that this was or might be a case of cholera. This is a little different from my views heretofore. I have been long opposed to him but in his last article he is so reasonable and so logical that I am almost converted to the cholera bacillus theory. Dr. Bremer says that he made a thorough examination of the dejecta in this case and he found no comma bacillus in it; he says it is not cholera. I am glad of that because I said then it was not a genuine case of cholera and suggested that it might be a case of poisoning from gas where the man was at work and to which he had been exposed. The failure of Dr. Bremer to find comma bacillus in the dejecta in this case goes somewhat to strengthen my doubts as to the genuineness of this case. I have seen a good deal of cholera, but I do not propose now to discuss the subject of cholera. I do not believe that there is any cholera in the United

States to-day. I am a firm believer in the specificity of cholera, and until the specific causes reach a community it will be exempt from cholera. There is no such thing as a sporadic case of Asiatic cholera; it cannot be. I believe cholera depends upon a specific cause, be it a change of the atmosphere or filth or diet or anything else. I believe that it will not produce anything else but Asiatic cholera and Asiatic cholera cannot be produced from any other cause until that cause reaches the community; even dirt and filth or bad surroundings will not furnish pabulum upon which it will feed. I do not think that it requires that kind of pabulum at all upon which to flourish; I do not believe in the filth and dirt theory a bit. I have seen cholera flourish in the healthest parts of this country where there was no filth; but at some other time I will talk about that. I am willing to admit that where many people are congregated together, as we have seen in the few cases which have been reported here, that where people are hibernating, the atmosphere of their rooms becomes impure and I think they become much more liable to disease than they would under more favorable circumstances. I do not believe we shall have cholera until it is brought to us by a case of genuine Asiatic cholera. Now the cholera is in different parts of Europe; we are neighbors of every part of the world and I am looking forward to the coming of the disease next summer and it is well for us to put our city in a good sanitary condition to receive it. If the so-called cases which have been spoken of in the papers and have been ridiculed so sharply by some of the New York papers, serve us the good purpose of causing us to clean up our cities I think one good end will be subserved by it.

Dr. Dean.—I think, in speaking of cholera, medical men, at least, ought to be more careful in defining what they mean; that they should be careful to state whether they mean Asiatic cholera or cholera nostras. I am no more satisfied now than before I heard the discussion which has taken place here to-night, and the result of the examination of the dejecta of this case which has been reported by Dr. Bremer, that it was not a case of cholera. My opinion of this case has not changed in any degree, but when I say this is a case of cholera I do not mean that it is a case of Asiatic or epidemic cholera, that would be dangerous to the health of the city. I think medical men should be careful to state the exact cause of death in each case. If we cannot, in giving the cause of death, state the exact disease from which death occurred

our statistical tables will be of no value. A medical man is bound to give as definitely as he can the cause of death, and use the terms which are ordinarily recognized as describing a certain disease. If we have a case of cholera morbus there may be 40 physicians that have 10 or 12 cases of that disease; it is ordinarily described as cholera morbus. We may have other cases occurring during periods of epidemic cholera and then such cases would be ordinarily described as Asiatic cholera. A man might have one such case as I have reported here in the cold winter or he might have two or three, but I do not know of any term that we could use that would better describe such cases than cholera nostras; it concurs exactly with what we understand of the symptoms of that disease. Now, in this case, besides these other symptoms that I have described there were what we call rice-water discharges and only such symptoms as are met with in the disease which I have described. I have taken considerable pains to obtain specimens of cholera dejecta for microscopical examination. I can show you now in my possession three specimens one from abroad and two made in this country; you may examine them with all the latest modern appliances of the microscope and you will hardly find any traces of bacillus in one of them, and they are not of the character which has been described by Dr. Koch; we cannot classify the bacillus. Had I found what I believed to be comma bacillus, what Dr. Koch has described as such, I would still not have been confident of the fact that this man had died of Asiatic cholera. If it were in cholera times and I had not found the presence of comma bacillus I should then have thought it was the fault of my own observation because I should have confidence in the well-known intelligence and accuracy of Dr. Koch. We are bound, of course, to take the statements of others as the nearest we can come to the truth until we can find better ground to stand upon. If Kock has not found the cholera bacillus I still think that this disease has something of the character of cholera and should be called by that name which most accurately describes it.

DR. MUDD.—I presume you gentlemen would rather have the details of a case that I saw than any special opinion that I may have about it. I was called Friday a week to see a colored man who had been for four years a worker in Shickle, Harrison and Company's, firing a coke furnace, and at the time I saw him, between 12 and 2 o'clock on Friday, the pulse was hardly per-

ceptible, the skin was somewhat wrinkled and leathery, the extremities were cold and he was vomiting and purging, and had been so since early Thursday night. The first part of the history of the case as I found it at the time was of this character. The patient had been at work as usual; he worked on the night shift. On Tuesday night he had become somewhat oppressed by the gas; he felt very badly after firing the furnace; he went into the fresh air and recovered after a short time. He felt no inconvenience that night, but the next day he did not feel quite well but still worked. He returned again to his work on Thursday. During his hours of labor on Thursday he suffered with diarrhœa and with nausea and vomiting and had to leave work and go home. The pains he suffered on Thursday and Friday night were not those of an acute pain from the bowels; they were the pains that come from the cramping of the muscles of the abdomen and the muscles of the leg. The muscles of the leg and abdomen, as his wife described them, gathered into knots and he suffered very acutely from that. That was the chief source of his suffering notwithstanding he was vomiting and purging all the time. The dejecta were of a thick rice-water, and that from the vomiting was of the same character. I gave him opium and Hoffmann's anodyne and applied hot water and rubbing, etc. The patient seemed better that evening but suffered through the night. During the first day the skin was a little wrinkled but not markedly so. The next day his skin was a little warm and in better condition all over the body, notwithstanding the fact that the pulse was weak. He voided no water after I was called. From Friday until Saturday evening at 7 o'clock, when he died, the urine had been suppressed; he had passed no water since Friday morning early. He died at 7 o'clock without much suffering. He did not seem to be particularly anxious about himself at any time. Perhaps he exhibited more anxiety at the time Dr. Scott was there than at any other time. There was one feature about the case that I noticed. I was there about an hour before his death and right after his death. At the time I was there an hour before his death his face and extremities were cold. At the time I saw him, hardly an hour after his death, his face and extremities were warm: that condition of warmth was maintained during the night. I saw him at noon the next day and the body was still warm. I do not know how much influence the coke gas would have on generating such a condition as this; I suppose that poisoning

from coke gas would usually be manifested by a disturbance of the lungs and it would pass off without much disturbance perhaps, or, at least, with a slight disturbance of the stomach and bowels. I did not think the case was one of Asiatic cholera and I reported it to Dr. Dorsett personally, saying that I did not desire to make any official report of it; I reported it to him as a matter he might be interested in. I saw Dr. Scott about it because I thought it was an exceptional case and I wanted his opinion on it; I do not think it was Asiatic cholera. I think Dr. Dean has given good reasons for naming it choleraic diarrhœa. I have seen cholera morbus but I never saw such a case as this, a simple cholera morbus. These people were more than ordinary intelligent negroes; the man who died was a powerful muscular man, not a fleshy man but a man of good habit, who took good care of his family, and was a better provider for the household than most negroes we see. His surroundings were good; there are very few households where the members of the family were better fed. I saw nothing in the habits or surroundings of the family that would account for the condition he was in. I am satisfied it was not the nervous system that produced the disturbance. If it was, it was not from nervous shock; there might have been an orginal disturbance from the effects of the gas.

DR. ATWOOD.—Did you take his temperature before and after death?

DR. MUDD.—Before death the temperature was below the normal, when I saw him on Friday. The hour before death it had risen to 99.°4 F.

DR. LOVE.—Do you know whether he drank well-water or hydrant-water?

DR. MUDD.—They had no well-water at the house and I suppose they did not have it at the works; he used hydrant-water at home. There was no post-mortem in the case.

DR. FABER.—What I want to get at is whether there was a good deal of venous congestion of the entire intestinal canal. This is a question of interest as showing the symptoms of cholera. For my part I am an opponent of the comma bacillus being the cause of cholera. I believe that these two cases show that we have cholera with all its symptoms, and that there were present no comma bacillus, proving my position. Now I cannot see why we should call the disease by other names if the disease has all the symptoms of cholera. I believe that comma bacillus may

just as well be the consequence of cholera as the cause of it; but we have no comma bacillus in these cases. I believe that these two cases, notwithstanding the statement here that on the entire continent we have no cholera, might prove that we have cholera and that it might spring up anywhere. We have had cholera in the winter when the temperature was low and also in the summer when it was very nigh. Now you know when people are crowded together in a room in cold weather and the room very filthy, that under such circumstances venosity might take place and produce such a condition as might cause cholera. I certainly have not prepared myself to speak on this subject, but I have thought a good deal of it and I have read much; I have studied the subject of Asiatic cholera a good deal and I have tried to give my opinion here as well as I can possibly express myself. I do not believe that comma bacillus is the cause of Asiatic cholera. The idea that filth cannot be the cause of cholera I think is an idea that is almost absurd. I think this venosity might be produced by a lack of oxygen in the air; and filth undoubtedly will, by fermentation, take the oxygen out of the air.

DR. DEAN.—I will state that I examined this man very carefully in every part except the brain and I found the body normal. No one could have told of what disease he died from an examination of the body except by the condition of the mucous coat of the intestines. There was one point that I forgot to mention when I spoke of the case at first. Many believe in atmospheric causes as inducing cholera times. I recollect that when I telephoned about this case some one asked me through the telephone if it was just such a case as we usually have before a cholera season. I do not believe it was a case of that kind at all. I think this is another reason why we should seek to make the statistics as correct as possible. These cases occur when there is no cholera and they should be given as honestly at one time as at another. If these cases occur while cholera is abroad they should be given by the true name, just the same as when the cholera epidemic is upon us. I will state that the temperature in this cas was 32° 4C. just before death.

DR. HUGHES.—I have a case in my mind to which I will refer. A man had been watching and attending his wife who had been afflicted with trigeminal neuralgia and he accompanied her to Lake Minnetonka. His nervous system was considerably affected on account of the anxiety attendant upon the case, which had

lasted for nine years. When he got to the hotel at the Lake it was Sunday morning. The rapid transfer from a high temperature here to a temperature much lower, by some 40 degrees, and also from the fact that he had purchased a suit of light clothing here and had not yet taken it off, must have caused considerable shock to the nervous system. On Sunday morning he still had on his light clothing. He lay down upon his bed, his wife being quite relieved for the first time for many weeks, and fell asleep; the change of temperature was such as to produce a shock upon the nervous centres and the consequence was that this man, who had been previously weakened on account of his anxieties and attentions to his wife, was taken with a looseness of the bowels followed in two or three hours by nausea and vomiting, and followed after that with a most intense cramping of the lower extremities and in the bowels. I think in about six hours from the time the first symptoms appeared, this man had all the external symptoms which indicate a case of cholera nostras, or a case of Asiatic cholera, for we cannot distinguish between them as far as external symptoms are concerned, in my opinion. The muscles of the leg were knotted and the pain was such as to produce the most excruciating cries, such cries as I have not forgotten, such as I heard when I was a boy in 1849 when the cholera raged here. There is a cry which a cholera patients emits which is almost characteristic. I never saw a case of Asiatic cholera more perfectly simulated than this with all the external symptoms of cholera that we know. The dejecta were rice-water discharges, such as we see in those cases. Now I would like to know what is the difference between Asiatic cholera and cholera nostras?

DR. DEAN.—One difference is, that Asiatic cholera spreads while cholera nostras does not.

DR. HUGHES.—It seems to me that in the early stages of a cholera visitation, when a man has cholera morbus and dies it is called cholera nostras, and when he has cholera nostras and lives it is called cholera morbus. Our fathers when they invented that term begged the question in calling it cholera disease; there is a distinction without a difference. I think it was about the wisest thing our fathers could have done, in view of the similar symtomatological phenomenon of cholera, so far as we can see, to make a just distinction so far as the symptomatological phenomena are concerned. Cholera nostras and Asiatic cholera are alike;

the difference is in the cause and the cause is probably in atmospheric conditions. I think there is no question as to the neurotic basis of the symtomatology. In view of the recent researches that Dr. Koch has made, are we justified in gainsaying that the comma bacillus exists without any positive relation or without any intimate relationship to Asiatic cholera? Now we must take one of the two horns of the dilemma; there never is found comma bacillus disassociated from Asiatic cholera. Now comma bacillus cannot be the consequence of Asiatic cholera unless you believe in spontaneous generation. Notwithstanding the power with which spontaneous generation has been maintained, the doctrine is to-day exploded, and the idea is rejected that you can have life without an organism, therefore we are forced to accept the bacillus theory.

DR. WISE.—I think there can be scarcely any doubt of the essentially neurotic nature of cholera; and upon that hypothesis we can very readily understand why we can have such manifestations from divers causes. The fact that we have so-called sporadic cholera is so well known and understood that it need not be dwelt upon at all. Everybody knows that we have those cases resembling Asiatic cholera exactly at all seasons. Therefore, it is that different causes are capable of producing the same effect. I think it must be some disturbance of the blood; some disorganization of the blood acting secondarily upon some nervous centre, as suggested by Dr. Bremer and Dr. Hughes. Now I merely rise to call attention to one fact that was not mentioned in this connection; that is, that in certain cases of arsenic poisoning you have such a close simulation to true Asiatic cholera that no one, unless they knew arsenic had been administered, could possibly tell the difference. Therefore, it is probable in the highest degree that some cause primarily acts upon the blood, producing its disorganization and secondarily upon some nervous centre that has control over the bowels and that will produce the peculiar dejecta and this peculiar action of the intestines. I do not see how anybody who has studied this subject can doubt that cholera is essentially a disturbance of some of the neurotic centres.

DR. FABER.—I would like to ask the last speaker whether he does not in every case of disease, no matter from what source and in what way it is produced, find a nervous disturbance? There is no disease where nervous disturbance is not the conse-

quence of it. I believe that this disease, called cholera, can be produced spontaneously.

DR. WISE.—I do not think the gentleman exactly appreciates the point I wanted to make. In dwelling especially upon these two cases which we have had here, I meant to say that different causes might produce the same effect. I will not go back to the primary cause; I am willing to admit there is such a thing as cholera bacillus; I am willing to admit that cholera may be due to a lack of oxygen in the air, but I do insist that in addition to these, if they were the cause or from whatever source the cause may arise, that it may cause such a disturbance in the blood as will produce an effect upon a nervous centre which may be followed by these symptoms, which may be followed by this disease which is in all respects like cholera. We have had cases in the city within the last week or two which were produced by causes which are totally remote from the cause which produces epidemic cholera.

DR. DEAN.—I think the gentleman reasons a little too far; I don't think they produce the same effect; they are the same to a certain extent. Cases of the kind mentioned here do not spread all over the country, Asiatic cholera will. I would like to ask the gentleman who thinks that comma bacillus is the result of cholera, where that bacillus came from, unless he believes that life arises *de novo*.

DR. FABER.—Will the doctor tell me where the first cell originated; it has been contended that man is the result of development and not the result of creation.

DR. DEAN.—I would ask the doctor that if he thinks cholera bacillus is the result of cholera, if he can maintain that theory without admitting that cholera bacillus exists *de novo*.

DR. FABER.—I for, my part, believe that life may originate *de novo*.

SATURDAY, January 31st, 1885.

DR. ATWOOD, President, in the chair.

Bichloride of Mercury as an Antiseptic and Germicide.

DR. MEISENBACH.—I have here a very handy form of antiseptic. It is bichloride of mercury in the form of compressed tablets. This is a recent preparation of Wyeth & Bro. according to the formula of Dr. Wilson, of Philadelphia. These tablets con-

tain 7 3-10ths grains of bichloride of mercury to 7 7-10ths grains of muriate of ammonia. One of the tablets placed in a pint of distilled water will make a solution of one in 1000. They are very excellent and easy to carry around in the pocket. By this means the physician may always have a reliable antiseptic and germicide, an object which may be appreciated by such as have much to do in the line of dermatology or surgery.

DR. HULBERT.—I have salivated five cases with a solution of one in 3000 given as a vaginal douche which was used twice a day.

DR. A. GREEN.—There is no question but that bichloride of mercury is the most powerful antiseptic we have, and there is no question but that it is the most dangerous, far more so than carbolic acid. For instance, in some cases where you have to impregnate the whole animal body with the germicide. If you do so with a solution of carbolic acid, even going so far that the urine becomes black and stop there, you will not injure your patient, because it passes away with the urine, and as soon as the urine becomes lighter colored again you can go on and give it, and it does not accumulate in the system. But this is not the case with bichloride of mercury, a good deal of it will remain in the system, part of it will turn into calomel and part of it will exert its injurious effects upon the system. Again, the solution of bichloride of mercury is very irritating to mucous membranes. You can take a solution of carbolic acid, even a three *per cent.* solution, and some physicians even use 3 1-2 *per cent.* and you may use it as a spray, you may impregnate the bronchial tubes or you may go so far as to impregnate the pulmonary vesicles, and if you know when to stop there is no harm done to the animal body, but you will do harm with the bichloride of mercury. Some say bichloride of mercury has no smell, you do not notice anything disagreeble about it. That is the very point. If you use carbolic acid in the patient's room its smell impregnates the very atmosphere that he is breathing; all the surroundings of the patient are thoroughly impregnated and it is being inhaled, and while it does not do him any harm it acts upon lower organisms as a germicide; that is not the case with bichloride of mercury. But there is no doubt that, in some cases, the bichloride of mercury is far superior to any other germicide that we possess but it will not do to use it as a general thing. I used this antiseptic two years ago once and, from my experience with it then,

I would hardly ever use it again, because I think it is unscientific and impractical.

DR. BREMER.—I do not believe that those surgeons who use bichloride of mercury to-day as an antiseptic employ it at all as a dressing; they use it only during the operation. It is certainly the most powerful of all the antiseptics, and if there is any truth in the germ theory, for certain diseases it is the remedy, at least it should be often employed. Those surgeons who made use of it so far have nothing to report of its disastrous consequence, as far as their observations are concerned. Of course, it is to be used with caution as every antiseptic is. Antiseptic remedies destroy protoplasm, diseased germs cause protoplasm. It is very true there is an iodoform marasmus and a carbolic acid marasmus, and a great many surgeons who use the carbolic acid spray and, of late, the iodoform dressing are subjected to this kind of marasmus. If you handle bichloride of mercury very much you are apt to suffer the consequences. Now it is quite natural that if you use the bichloride of mercury as an injection, salivation should be set up, because there is a good deal of it which remains in the system and that of course in time will produce it. But there are cases when it ought to be employed and certainly is employed by the leading surgeons, and that is for the cleansing of instruments and for washing out the wound immediately after the operation, but not as a dressing.

DR. HULBERT.—As to the extent of the salivation in those cases I would say that it was not extensive. The gums were tender and some of the teeth felt loose to the patient, although I could not discover any looseness. I have used the bichloride of mercury as an antiseptic a little over a year. I couldn't give the exact number of cases in which we have used it, of course, but I think it is about 300, and out of 300 cases these five were the only once who presented any indications of bad effects, and it took quite a long time for them to present any toxic manifestations. The time varied in different cases, some of them were three days and I think one of them was as long as a week before there were any indications of the effect of the bichloride. As an antiseptic I value it very highly. I think that a great deal of our success in handling puerperal cases at the Female Hospital has been due to its effects. We had one case which presented very decided local irritation, excoriation, but that was due to the carelessness of the nurse. I don't know what strength of solution

was used in the case, but we ordinary employ a solution of the strength of one in 3000, using it twice a day.

DR. ED. BORCK.—I think that Dr. Bremer is right in his statement, it is undoubtedly a fact that the bichloride of mercury is the best antiseptic to keep instruments clean. I always wash my instrument in it. When I was a boy my father taught me to keep my instruments clean, and after washing them to take a little blue ointment and a piece of leather and, after drying the instruments, to rub them with it. I have with me a pocket-case which I carried with me in the army for three years and which has never been to the instrument maker, and nobody has a set of instruments which are cleaner and in better order.

DR. MEISENBACH.—There is no doubt whatever but that bichloride of mercury is the strongest germicide we have. We have no other remedy which will take its place, and especially in those cases where it is used as an injection, and I think that the general experience has been that it is a comparatively safe antiseptic and germicide; at least, it has given most exeellent results. It is also used as a dressing, not placed in immediate proximity to the wound, but to saturate the outer covering of the wounds; hence, it is of some value in their treatment. I have used it in direct opposition to wounds only a few times and I have found no bad effects from it. It seems to have a kindly effect, favoring granulation and cicatrization. I have in my mind a case of cellulitis of the arm following a severe cut across the flexor tendon of the hand in which the cellulitis followed as a natural sequence as it usually does, in spite of all treatment. I found that daily washing out of the pus cavity with the bichloride of mercury caused the case to progress very favorably, more favorably than cases treated previously by the use of carbolic acid; there was no bad symptom in this case. I have not used enough of it in this manner to determine what the general result would be, but the general impression is that it is a comparatively safe antiseptic if you handle it carefully, as we all know we must handle all these remedies. Bichloride of mercury is used by me in solution of one in 1000, I usually use five *per cent.* solution of carbolic acid, and I think that the former is better than the latter in similar cases.

Bichloride of Mercury in Carbuncle.

DR. POLLAK.—All the gentlemen have heard of our friend Dr. Wm. Johnston who had a carbuncle 7 1-2 inches long and 6

1-2 inches wide. During the process of sloughing this carbuncle was washed out every day with bichloride of mercury, one in 1000; it had a most happy effect. The slough went off very handsomely and all the sloughing material was gotten away. Then it was dressed with chlorate of potash, nothing else in the world. There was no other treatment pursued in the case and it was a most excellent result; it has cicatrized beautifully.

DR. A. GREEN.—If there is any truth in the germ theory, this carbuncle was the result of micro-organisms; and if there is any virture in the antiseptic treatment at all it should have prevented the carbuncle reaching that extent. Of course in the case of carbuncle I would be in favor of using the bichloride of mercury because here the disease is more dangerous than the remedy. But what I was going to emphasize before was merely, that the bichloride of mercury was dangerous because some part of it would remain in the system, whereas carbolic acid will not. If I had a wound which was already in a septic condition I would wash it out with bichloride of mercury, one to 3000, using it simply to cleanse the parts, but as for its continued use I think it is far inferior to carbolic acid. We have other antiseptics, benzoate of soda, boracic acid etc., but, of course, they are not powerful.

DR. ED. BORCK.—The doctor says that the object of the use of an antiseptic in the case of carbuncle would be to prevent its reaching such an extent. I remember a case which happened in my practice about three years ago, in which there was a very beautiful effect. The engineer at the Fair Grounds had an incipient carbuncle upon his neck and he came to me and said that he could not leave his work, and yet the pain was so severe that he could not stand it. I knew that if I gave him morphine he would sleep well during the night, but also knew that carbolic acid does no harm and it would stop the pain, so I took a drop of it and injected it into the carbuncle and brushed the carbuncle over with it. To my surprise the man did not again show himself for three days and when he did come he had no carbuncle, it was all gone. I tried this again after that but without success. In this single case it worked admirably.

DR. DORSETT.—I have used carbolic acid some, just as Dr. Borck has used it, but in cases of bubo. I have used it in a dozen cases within the last six months and about half of them got along very nicely and the others didn't do so well. I really believe

that the buboes which sloughed did so more after the injection than they would have done had it not been used.

Dr. Meisenbach.—I would like to call Dr. Green's attention to the fact that usually the carbuncle is not seen by the surgeon until it is so far advanced that you cannot prevent it. But there is a practice in the treatment of carbuncle if seen early enough which will have a very happy effect, that is by applying pressure by means of adhesive plaster or collodion. I think it is preferable to the crucial incision in some cases; it has a most happy result often, it seems to induce absorption and lessening of the necrotic process.

Dr. Atwood.—I will state that in several cases of carbuncle I have made use of a practice which has not been mentioned. Simply passing a knife into the tissues beneath and then dressing the part with the permanganate of potash on a piece of lint and covering that with oiled silk. The treatment has, on no occasion, failed me.

Dr. Pollak.—Dry cups have been recommended in carbuncle. I wish to say a word in regard to bichloride of mercury in suppurative inflamation of the middle ear. I have used this after cleansing the ear with water. I always drop the solution into the ear; I believe it has produced a happy effect in stopping the suppurative process and deodorizes the discharge; in fact, it acts better than almost anything that I have ever tried. I use the bichloride of mercury, in dressing nearly every day.

Mercury as a Tonic.

Dr. Bremer.—In regard to the dangers attending the use of mercurial preparations I believe our generation is still too much impressed by the scare which was created about 20 years ago by Bennett of Edinburgh, who fed dogs on excessive doses of mercury and produced caries of the bones. He exhibited the skeletons of those dogs and that made a powerful impression on the profession in England at the time. The time honored phrase too that mercury destroys the plasticity of the blood and is of no value in medicinal doses still holds to a considerable extent; whereas, if carefully used, mercury is so far from being a destroyer of the plasticity of the blood that it is, on the contrary, as is well known, a tonic, and not only a tonic in diseased conditions but a tonic even under normal conditions. For rabbits have been fed with minute doses of bichloride of mercury and they were found to increase in weight after a number of months.

Now the constant and continued use of the bichloride of mercury in dressing wounds might lead to very serious consequences I have no doubt, and the poisonous effect of mercury in a metallic state coming from mirrors has been very often observed and has very often taxed the ingenuity of the physician to find out what was the matter with those who suffered from the peculiar cachexia; they have found upon close investigation, in some cases, that this cachexia was a mercurial cachexia due to the evaporation and inhalation by the patient of particles of mercury from the defective mirrors. This has been observed more than once, especially in France, where the people are in the habit of keeping a great many mirrors in their rooms. But the cautious administration of mercury even in the normal state and under normal conditions is apt to increase a vigorous organization instead of pulling it down.

DR. ED. BORCK.—I would like to ask how the doctor accounts for the fact that the dogs which were fed on mercury were detrimentally affected and that with the rabbits it acted beneficially?

DR. BREMER.—Because with the dogs the mercury was given in excessive doses and to the rabbits it was given in proper doses—in tonic doses. In one case it acted as a poison and in the rabbits as a tonic. It must be given in the proper doses in order to exert its beneficial effects. The rabbit is what we might call a scrofulous animal, not perhaps naturally so but from the fact that it is frequently kept under very bad hygienic conditions. The rabbit is very easily inoculated with tubercular virus, there is no animal except the guinea pig which takes tuberculosis more promptly, and this disposition to tuberculosis is favored in Europe by the fact that they keep then in cellars. They are pretty well fed but they have not sufficient light and air, hence the remarkable ease with which they are inoculated with tuberlosis, so that the rabbit in a scrofulous animal but not a syphilitic one.

DR. BORCK.—But you cannot make a body more healthy if it is perfectly healthy?

DR. BREMER.—I do not believe that you are entirely correct in that, doctor. I suppose men as well as beasts enjoy a medium state of health. But there is no doubt about this fact that the health of an animal under the proper hygienic conditions with proper exercise with proper food can still be increased to its

maximum, the same way as a man may be raised to a higher or reduced to a lower standard of health, and I don't see why the rabbit should not increase in weight if it is taken care of and brought under the action of some medicine ; it is not impossible.

DR. BORCK.—But suppose you have a maximum state of health can you make that body more healthy ?

DR. BREMER.—No; but the animal is not always in a maximum state of health.

DR. BORCK.—Supposing that it is in a maximum state, if you give the medicine in proper doses it must produce disease because you have already a maximum state of health and cannot produce any greater health ?

DR. BREMER.—That is merely a statement of the different platforms upon which we stand. I don't believe that animals are in a maximum state of health, nor that a man is, nobody is but the prize-fighter after he has gone through the proper amount of training.

DR. BORCK.—If you give mercury in small doses to the prize-fighter after he is in proper health would you make him better or make him sick ?

DR. BREMER.—I don't know about it, I never gave a prize-fighter mercury. But a prize-fighter who is in a prime state of health might still be improved if he was fed with very small doses of mercury; but this is merely a supposition. The fact remains that rabbits and dogs have been fed on very small doses of mercury and have invariably been found to increase in weight. These are stubborn facts than cannot be taken out of the way.

DR. A. GREEN.—I cannot subscribe to the opinion that mercury or any other drug which is not a regular physiological constituent of the animal body can ever prove to be a tonic. Phosphorus is a constituent of the animal body and, therefore, in proper cases, it may prove to be a tonic. So will fat, lime and soda, because they are constituents of the animal body. The science of the present day has decided that quinine and peruvian bark are not tonics. Quinine is a tonic only so far as it acts against the malarial poison in the system. Mercury may prove to be a tonic in so far as it acts against a lurking poison, syphilitic or other, and by overcoming that, it admits of the body assuming a physiological state. In that way it acts as a tonic but not as a tonic operating upon the system physiologically. Now, why do rabbits improve under the small doses of mercury ? We must

not forget that rabbits are more or less tuberculous; they have in themselves this micro-organism which does not allow them to reach their maximum of health. Mercury, or any kind of combination which acts against those micro-organisms, acts as a tonic, it acts as something against the disease lurking in them by virtue of which they cannot attain the maximum state of health. So far it is a tonic; otherwise nothing is a tonic, nothing can be unless it be one of the regular physiological constituencies of the animal body. A woman came to me 15 years ago and told me that she had contracted syphilis from her husband who served in the confederate army. I treated her and she got well. The last time she came to me I didn't know her, she weighed 25 pounds more. I had treated her with calomel and consequently the calomel I gave her and the antisyphilitic remedies did not act as a tonic, they only proved a tonic so far as they combatted the existing disease which prevented the body from assuming a perfectly normal condition. Quinine is a germicide but of course if you give it in large doses it will be a poison, it will produce paralysis of the heart.

DR. HULBURT.—How about alcohol?

DR. GREEN.—That is the same thing.

DR. HURT.—It seems to me that Dr. Green is only half right. It is very true that those chemicals that are capable of being incorporated into the organism as a part of its nutrition and support must be considered tonic, not only tonic but very properly sustaining, and they may be esteemed directly tonic in contradistinction to another class of elements which being administered are not constituents and not even capable of being appropriated as constituents, as any of the elements of the body, and which are yet tonic from the fact that they have the property of stimulating nutrition and in that way they are not direct but they are indirect tonics. Anything that will stimulate the tissues or prepare the proper nutriment for its sustenance may be availed of.

DR. BREMER.—The inhabitants of Stenermark, Austria, are arsenic eaters and they do well. They have taken it for generations and take more than one grain every day and they take it daily, and you cannot see a healthier race of men and more able women than are found there. So far as I know, arsenic does not enter into the composition of the human body and still, in their case, it certainly acts as a tonic. Those men feel stronger by the use of it and they can perform a greater amount of work.

These are facts and you cannot combat facts with theories. Facts have been established by experience and the time has passed in medicine when physicians only make use of dialects in order to prove something; we have to combat each other not with phrases but with facts and experiments. The proper way for Dr. Green to oppose this fact, which has been observed that rabbits fed with very small doses of mercury increase in weight, would be to go and try it himself and if then he found that rabbits to whom very small doses of mercury were given, under the the same condition, decreased in weight, he would have a right to say that the other experiments are of no value.

DR. DUDLEY.—What class of diseases prevail among the inhabitants of Stenermark?

DR. BREMER.—I do not know that, but the people are in a very healthy state. I know that from descriptions of travelers and also from personal experience.

DR. MEISENBACH.—I would like to inquire when these rabbits were fed on small doses of mercury what effect it had on the multiplication of the red corpuscles of the blood?

DR. BREMER.—If I am not mistaken, the red corpuscles were counted before and after and found to have increased after the administration of the mercury.

DR. DEAN.—In using the word germicide two significations have been attached to it. Apparently a certain drug acts upon those micro-organisms and there are certain drugs which alter the fluid tissues of the system in such a way that those organisms do not find their proper soil to multiply, and mercury when given to rabbits is a germicide in so far as it alters the fluid, alters the condition so that the system is in an unfavorable condition to permit of the multiplication of these organisms and it may prove beneficial in other animals in the same way and in man, but rabbits are more or less affected with tuberculosis.

Muriate of Cocaine.

DR. POLLAK.—I reported 16 cases in which I had used muriate of cocaine. I am now using it every day as is every other oculist in this city, both for operations on and for exploration of the eye. It is a grand remedy, I could probably never do without it again. Certainly, since cocaine had been introduced, I have had no occasion to make use of chloroform or ether in any operation on the eye. I reported seven cases of strabismus in which I did not use anything else to produce an anæsthetic effect.

It is also especially beneficial in the removal of foreign bodies from the eye.

DR. WILLIAMS.—Since I reported a case of cataract removed under the influence of the medicine sometime ago, I have operated on other cases. One was a case of iridectomy which was completely relieved without any pain during the operation. Another case was one of pterygium. In this the man really did not know that I was cutting his eye at all, the part was completely anæsthetized. Another case was a very nervous, fidgety, lady who had been burned by some kind of an explosion which took place in a vessel, that she was using over the stove, and the hot material from the vessel flew up into her face and burned both her eyes. In one eye there was half a dozen or so specks of foreign substance sticking to the cornea. I used cocaine in that eye and took this foreign substance off and she said she did not know that I was touching her eye. She asked if I was scratching her eye and I said yes. She said, "well I don't feel it at all." So that cocaine is a decided anæsthetic to the cornea. Only a few days ago I made quite a severe and extensive operation on the skin of the lids of a child from the country, a little girl, and from the experience I had before in operations on the skin of the lids I did not risk cocaine in her case, because it was a tedious operation lasting half an hour or more and I gave the little girl chloroform. I did not feel at liberty or justified in performing the operation with cocaine.

DR. MEISENBACH.—Within the last ten days I have had a case, an old man with an enlarged prostate, in whom I attempted to introduce a soft catheter, without effect, and I then had recourse to my ordinary pocket catheter which gave him great pain. The first attempt to pass the instrument was successful but I found the urethra after the first introduction of the metallic catheter was considerable irritated. I then made use of the four *per cent.* solution of the muriate of cocaine, injecting into the urethra one drachm of the solution and then wait four or five minutes. The previous introduction had given him excruciating pain, but after the injection of the cocaine it did not pain, and I introduced the catheter as far as the membranous portion before he began to complain, and I think if I had been able to introduce the cocaine throughout the whole extent of the canal the introduction would have been entirely painless. This was the first time. The second time the use of the same quantity was not so successful but I at-

tributed the want of success mostly to the irritation already produced by the introduction of the catheter. I think if the entire urethra could be thoroughly impregnated with the solution that the introduction of the catheter would be painless.

DR. HERMANN.—In one case of chronic pyelitis with paralysis of the bladder in which the patient had to be catheterized three or four times a day, I have used an injection of cocaine with the result of anæsthetizing the anterior portion of the urethra. But the action of the anæsthetic would not go beyond the external sphincter of the bladder. Of course, the injection would not reach any further into the urethra and that portion of the urethra is always quite sensitive.

DR. POLLAK.—I want to mention a case in which I used the drug this week in which I had occasion to perform paracentesis of the membrana tympani. This is an exceedingly painful operation. I used a four *per cent.* solution of the cocaine, introducing two drops into the parts first and after five minutes giving two drops more and performing the operation without the least inconvenience, making a complete division of the membrana tympani; that was the first time I tried it in such a case.

DR. BORCK.—I have tried cocaine in several cases, in removing foreign bodies, and so far as I have used it has had an admirable effect. But it seems to me that the cocaine when applied to the conjunctiva produces a hardness of the part for the time being, it seems harder than normal. There are numerous cases reported in some of the medical journals in which the drug has been used for operations on the urethra, such as Dr. Meisenbach and Dr. Hermann have reported. I have used it in cases of fungus granulation of ingrowing toe nail, which I am in the habit of relieving by cutting away the granulation and elevating the nail, and I have made the operation painless by the use of a five *per cent.* solution of cocaine, applied to the part before the operation and after cutting away the granulations introducing a piece of sponge under the nail and dressing it.

DR. BREMER.—The local anæsthetic effect of cocaine on the skin has been produced years ago. As early as 1878 experiments were made with it under the superintendence of Prof. Gosbach in Germany and it was found that cocaine was a first class local anæsthetic. A series of experiments were at that time published but nobody heeded them. It was not until Köller took up the subject and applied cocaine to the eye that it gained such world

wide reputation. This only shows what an amount of remedies there may be still in store for us and remedies too that have been tried experimentally by competent persons but that escaped our notice because nobody took up the subject. I have tried cocaine lately in a case of sciatica, injecting half a grain, and I must say that I limited the amount not so much on account of being afraid of the effect of the cocaine as from economy. I found that it acted about the same as the usual injection of morphine and atropine combined, with this exception that the man did not sleep for 18 hours, it kept him awake. He did not have any kind of delirium, he felt in good humor but could not sleep. I have repeated this injection as the pain came back in due time and injected it again to the amount of half a grain with the same happy result, but I could not say that it was any better than before and, on the contrary, it is worse so far as it prevented him sleeping. Since then I have heard of a case of a brother practitioner who suffered from an ulcer of the rectum who had to undergo an examination, which is always very painful. He injected about one grain of cocaine and the operation was pleasant to him, it did not produce any disagreeable symptoms and he did not have that unspeakable feeling, that disagreeable feeling of the patient whose rectum is examined by means of a speculum; but he was not able to sleep. So it seems that this may be one of the effects.

DR. BORCK.—In producing local anæsthesia by the use of rhigolene or ether it is very painful to an open wound, so is carbolic acid; but by using cocaine you can make an incision and stop, then take your pencil and put some more upon the part and there is no pain. Then you can wait several minutes and go on again with the operation. You cannot do this with rhigolene, ether or carbolic acid.

DR. LEE.—I will give an experience I had with the opening of a bubo. I injected a solution of cocaine into its most pendent portion and found that there was comparatively little or no pain in the operation.

DR. POLLAK.—I had a little experience with a case of dysmenorrhœa. The patient did not come to me for treatment for herself but on account of her little brother who was brought to me to be treated for a trouble of the eye. While I was examining the boy I noticed that the lady was sitting on the chair bending forward and pressing her abdomen at the same time making all sorts of frightful grimaces. I asked "Are you sick?" and she

said "I have been a sick woman for three years; I have been suffering from dysmenorrhœa," having been in the hands of every gynæcologist in this city, and only a few days before, having come from a gynæcologist whom she had been in the habit of calling upon twice a week, and she was not relieved. It occurred to me that that would be an excellent case to try cocaine. I said "You are not my patient and I am not going to interfere with the treatment of your physician". She said she was not going to see him any more and if I felt inclined to do anything for her she was perfectly willing to submit. I asked her to expose the abdomen a little and she exposed one or two inches and I injected five or six drops of a four *per cent.* solution of cocaine and in less than a minute she said she was free from pain and walked with perfect comfort. I have not seen her since then.

Book Reviews.

ARTICLE XXIX.

A TEXT BOOK OF PRACTICAL MEDICINE. Designed for the Use of Students and Practitioners of Medicine. By Alfred L. Loomis, M. D., LL. D., Prof. of Pathology and Practical Medicine in the Medical Department of the University of New York, etc. With two hundred and eleven illustrations. 8vo. pp. 1103. [New York: Wm. Wood & Co. 1884.

It needs no words of praise or recommendation from us to place this book favorably before the profession of America. The name of one who has, for the past eighteen years, filled so ably the Chair of Medicine is sufficient guarantee as to the value of the work. "The present work, both in text and illustration, is practically a revision and an elaboration of lectures given during the past eighteen years in the Medical Department of the University of the City of New York."

The illustrations are nearly all original, having been prepared for this work.

THE PRINCIPLES AND PRACTICE OF GYNÆCOLOGY. By Thomas Addie Emmet, M. D., LL. D. Third Edition, Thoroughly

Revised, with one hundred and fifty illustrations. 8vo. pp. 875 [Phila: Henry C. Lea's Son & Co. St Louis: Stat & Book Co. 1884.

Gynæcology has been no laggard in the progress that has been made in the domains of Medicine and Surgery, and those who wish to keep abrest the times, can find no better guide than this. The book is almost entirely rewritten; several chapters of the older editions have been entirely omitted.

The author lays particular stress on the fact that "intro-uterine injection should be abandoned, as not based upon sound views of pathology," and the sooner "the different forms and shades of pelvic inflammation, outside of the uterus, now usually overlooked," are recognized "as constituting the chief factor in the diseases of women," the better.

TEXT-BOOK of Medical Jurisprudence and Toxicology. By John J. Reese, M. D., Prof. of Medical Jurisprudence and Toxicology in the Univ. of Penna. 8vo. pp. 606. [Phila: P. Blakiston, Son & Co. 1012 Walnut St. 1884.

We quote from the preface:

"This Text-book has been written more particularly to meet the wants of students of Legal Medicine.

"The subject of Toxicology occupies a considerable space and has been carefully prepared; special attention being bestowed upon the most important posions—such as Arsenic, Strychnine, Opium, Prussic Acid, etc.

"The chapter on Insanity contains all the essential medico-legal points pertaining to this subject."

This work contains all that is to be found in the larger and bulkier volumes on this subject.

The Author has done his work well.

A PRACTICAL TREATISE ON DISEASES IN CHILDREN. By Eustace Smith, M. D., F. R. C. P. etc. Octavo pp. 844 [New York: William Wood & Co., 56 & 58 Lafayette Place, 1884.

In this work the Author discusses all the diseases pertaining to childhood, purely from a clinical stand-point. Those diseases that present the same train of phenomena in the adult as in the child have been omitted. He has eschewed the use of statistics to a great extent.

He dwells to a considerable extent upon the subjects of diet and hygiene. Most of the cases cited are from the Author's own practice, so that the work is essentially original and not a compilation of other's views. We agree with the Author that "Quiet, appropriate food, and plenty of fresh air will often restore

the health without the aid of physic; or if physic seem called for, the remedies needed are simple and few."

THE DIAGNOSIS AND TREATMENT OF CHRONIC NASAL CATARRH. Three Clinical Lectures. By G. M. Lefferts, A. M., M. D., pp. 49. [St. Louis: Lambert & Co.

This little work gives three clinical lectures delivered at the College of Physicians and Surgeons, New York. Subjects Examination, Diagnosis and Treatment of Chronic Nasal Catarrh. In examining the patient the doctor holds the tongue depressor instead of the patient; if the latter use the depressor, which should have a long handle, the examination could be easier made, besides giving the operator the use of both hands. In the treatment of this disease medicated vapors, powders and sprays are recommended. What good the vapors or powders do we can not see, as neither remove the secretion or crusts, and consequently, can not come in contact with the diseased mucous membrane. The pressure used for the spray, 40 ℔, is entirely too much, 8 to 10 ℔ is sufficient. In using the spray in the posterior nares the author uses a hook to draw the palate forwards and regards its use as "*absolutely essential* to the success of the application." If he used a spray less bunglesome than that of Sass and knew how to use it properly and would let the patient hold the tongue depressor, he would find no difficulty in getting a strong spray behind the palate without the use of such an instrument.

One Hundred Years of Publishing of Lea Brothers & Co, 1785—1885.

The profession of the United States are indebted to this firm for many of its most valuable works in Medicine and Surgery. A firm that has stood the text of one hundred years of the varying vicissitudes of fortune, that has been handed down from father to son to the fourth generation, that has ever worked for the welfare of the profession, thus has jealously guarded its imprint, deserves to live and will live, ever increasing in usefulness.

Its imprint always guarantees that the book is worthy of a place in the physicians library.

OUR BODIES; or, How We Live. Physiology for the Young. By Alfred F. Blaudell, M. D. pp. 285. [Boston: Lee & Shepard, 10 Milk St. 1885.

This book is admirably adapted for the use of scholars in the public schools. It would make the best text-book we have seen.

ELEMENTS OF PRACTICAL MEDICINE. By Alfred H. Carter, M. D., M. R. C. P. (Lond.), Third Edition. pp. 447. [New York: D. Appleton & Co. 1885.

The fact that it has been necessary to issue a third edition of this work, especially so shortly after the second edition, is proof conclusive that the former editions were well received. The subjects are treated in a concise and clear manner.

THE BASIC PATHOLOGY and Specific Treatment of Diphtheria, Typhoid, Zymotic, Septic, Scorbutic and Putresent Diseases, Generally. By Geo. J. Ziegler, M. D. pp. 225. Price $2.00 [Phila. Geo. J. Ziegler, M. D. 1884.

The author takes the ground that all the above mentioned diseases and allied affections, "by whatever name designated, from the simplest to the most malignant, are depended upon, or complicated with, one common basic, alkaline, pathogenic factor, mostly the volatile organic alkali—Ammonia" This book must be read to be appreciated.

A PRACTICAL TREATISE on Massage, its History, Mode of Application and Effects. Indications and Contra-indications, with Results in over Fourteen Hundred Cases. By Douglas Graham, M. D. 8vo. pp. 286. [New York: Wm. Wood & Co. 1884.

The author treats his subject in a manner that carries conviction to the mind of the reader. After giving the Definition and History of Massage, the author describes the *modus operandi* of its application, then gives its Physiological Effects. He describes its use and effect in Nervous Exhaustion, on the Uterus, on the Internal Organs, in Neurasthenia, in Affections of the Central Nervous System, in Writers Cramp and Allied Affections, in Neuralgia and Peripheral Paralysis, in Muscular Rheumatism, in Affections of the Joints and in different Affections of the Head, Face, Eyes, Ears and Throat.

The subject of Massage should be studied by the general profession more than it is at present.

A HANDBOOK ON THE DISEASES OF THE EYE AND THEIR TREATMENT. By Henry R. Swanzy, A. M., M. B., F. R C. S. I. Illustrated. 8vo. pp. 437. [New York: D. Appleton & Co. 1884.

"This Handbook is chiefly intended for students attending an Ophthalmic Hospital," but it will also be useful to general practitioners and oculists. It is a compilation of the views of the oculists of the day rather than those of the author. It fits admirably the place it was intended for.

☞Some Book Reviews and all Book Received omitted on account of lack of space.

THE SAINT LOUIS
MEDICAL & SURGICAL JOURNAL.

VOLUME XLVIII——March, 1885.——No. 3.

Original Contributions.

ARTICLE XXX.

THE EFFECTS OF EXCESSES ON THE MIND OF PROFESSIONAL AND BUSINESS MEN. By THOS. F. RUMBOLD, M. D., of St. Louis, Mo.

There are many professional and business men who suffer from a constant desire for change and excitement, from irritability of temper, from inability to hold the mind continuously on a deffinite subject, from mental and physical weariness, from forgetfulness and a state of mind that tends to waver or jump from one trifling subject to another, whose condition is solely due to the effects of excesses. They almost universally lay the cause of their mental and physical ailments to close and long continued application of the mind. No doubt this is many times the case, but not as frequently so as some suppose. My observations have lead me to believe that these symptoms are far more frequently the results of excesses and of colds, than of close mental application. Catarrhal inflammation of the nasal passages is more frequently the cause of these symptoms of "brain exhaustion," as they are sometimes called, than is credited to it. As this inflammation is many times a painless complaint, the sufferers are entirely unconscious of its existence. If they do know it, or suspect it, they usually consider it as a trifling matter, being long accustomed to slight attacks of cold in the head, which they have observed to pass away without producing serious illness. Their expressions about their condition are usually: "Its nothing but a cold. It will soon pass off", and such like. Besides neglecting their colds year out and year in, they disregard the laws of health by indulging in the use of tobacco and stimulants, thus increasing the congestion of the mucous membrane of the nasal passages and throat, which in turn has its effects on the

brain, lungs, heart and stomach. Whether the nasal inflammation has the ultimate effect of producing hyperæmia of the brain, or whether this condition comes from, what is called, reflex action, I am not prepared to say, but I do know that brain disturbance very frequently follows such an inflammation. At the same time, these victims of excesses are taxing their weakened brain (which is now becoming sensative because of the hyperæmia) to its utmost in attending to business. Not that their business requires more brain power than usual, but that their brain is not now equal to their usual business.

Show me the man who has indulged in the use of tobacco and stimulants, even moderately, from his fifteenth year to his fiftieth year of age, and I will show you a man who frequently complains of being exhausted while he is attending to his business; he will also complain of the other mental ailments mentioned and will require long vacations. If to these troubles he has added other diseases, acquired through immoral practices—which are also partly the results on the mind of the use of tobacco and stimulants, the tobacco, through its depressing effects begetting a desire for stimulants, and stimulants, venereal excesses—his cup will be full to overflowing. When such a man does break down, he is far more disabled mentally than physically.

Show me the man who has not committed these or other excesses, and has been careful to avoid taking colds, and I will show you a man who does not require a vacation, except from 9 ½ P. M., each night to 6½ A. M., next morning. He will be good for a full days work, every working day, until he is seventy years old, and when he breaks down, it will be from natural physical decay rather than from mental disability, his mind will be clear and active. A marked contract to the closing days of the man of excesses.

The man who does not commit these excesses, does not complain of being unable to get his business off his mind at bed time. When he retires for the night, he sleeps soundly, and is completely rested; after which his brain is ready for another hard day's work. He has no disease to maintain an unusual quantity of blood in his brain, which is the sole cause of sleeplessness. With him, as with other healthy persons, the usual normal proportion of blood leaves his brain when he goes to his bed for rest, so that sleep is possible.

It is the man whose brain is in such a hyperæmia condition

that he cannot attend to business, that is unable to sleep soundly. In other words, he cannot sleep for the reason, as he says, that he has not sufficient command of his mind to withdraw it from his business, yet when he is in his office, he has not sufficient control of his mind to hold it on his business, showing plainly that it is not because of attention to business, as said by almost every physician, but to other causes that prevent sleep; namely, a diseased condition of the brain, preventing the normal decrease in quantity of blood in the brain that is a prerequisite to healthful sleep.

"Oh," says some one to a forty-five years old merchant who both smoks and chews tobacco inordinately and drinks whisky daily, "you have applied yourself so constantly and so long to business that you have exhausted your brain; you are neurasthenic, sir."

This is not the whole truth, or rather it is an incomplete statement of the case, consequently the information given is erroneous, but worse than that, it is dangerous.

That his brain is exhausted is evident from his inability to use it as he formerly had done, but while this incapacity to attend to business demonstrates exhaustion, it does not prove that it is the cause of exhaustion.

If I should see a farmer who lives in a malarial country, and whose whole system is broken down by daily attacks of intermittent fever, fail to follow his plow, I could as truthfully, or rather as correctly say: "My dear fellow you have plowed your farm for these fifteen years, it is too much for you, your muscular system is exhausted, sir." That this farmers muscular system is exhausted is evident from his inability to attend to his daily work, but does this weakness demonstrate that his work is the first cause of his disability?

Is this farmer's muscles exhausted by the plowing or from the malarial fever? Is the merchant's brain exhausted by the attention to business or by other congesting agencies? It is exceedingly important to these two invalids to receive a *full* as well as a correct answer to these questions. It is just as evident to me that the farmer's muscular weakness is not due to plowing *per se*, as it is that the merchant's mental weakness is not due to his attention to business *per se*, and in the latter case, to the results from indulging his animal appetites to such an extent that his brain suffers secondarily.

A large percentage of patients of this class have voluntarily

stated to me, that they had feared that the use of tobacco and stimulants had much to do with their inability to attend to business, but not being informed of their injurious effects and having acquired a confirmed taste for them, and seeing their medical adviser, as well as other medical men of renown, addicted to the same excesses, they continued their habits and frequently endeavored to drown their troubles by still greater indugences.

With a few exceptions, these invalid business and professional men would have desisted at once from these excesses, if they had been correctly informed of the cause of their infirmities. This is the reason why I say that the physician, who informs his patient that attention to business is the sole cause of his brain exhaustion, has given dangerous as well as eroneous advice, because it is an incomplete statement of his case

If a business man observes that his mind is clear and quick when his head is in a normal condition, and that it is dull, cloudy and slow when his head is affected by a cold, or in damp weather, or after he has partaken of a wine supper and smoked inordinately, he may rest assured that these symptoms of mental disability demonstrate plainly that it results solely from inflammation in his nasal passages and the cavities connected with them, and not from continued application of his mind to any subject.

When the brain performs its functions, that is, carries on a train of thought, this act, in itself, induces a greater flow of blood to it than there would be, were it in a passive condition; this is well known. Even the mental exertion involved in computing as simple a calculation as $2 \times 2 + 2 - 2 \div 2 = 2$ occasions some degree of hyperæmia, but when the calculations are complex and involve numerous conditions, the degree of hyperæmia must be far greater.

It is evident that if a brain is made hyperæmic by disease, as is done by chronic catarrhal inflammation, before commercial calculations and care are undertaken, relief from mental exertion would be as beneficial as desisting from following the plow would be beneficial to the farmer spoken of; but it is also quite as evident that relief from malarial influences in the one instance and the congesting agencies, in the case of the merchant, such as repetitions of colds, resulting from the use of tobacco and stimuents, etc., that induce and maintain an abnormal flow of blood to the brain, are far more important matters.

I will answer a few questions that I concieve might be asked of me, at this stage of the argument, namely:

Is it not well known that there are professional and business men who do not commit the excesses spoken of here, yet are troubled, mentally, as are those who do commit these excesses?

Every individual that I have seen that has been afflicted mentally, as are those who have been addicted to the excesses mentioned here, has some brain trouble, it may be called hyperæmia, which I prefer, or inflammation. The cause of this brain trouble may not always be the result of excesses nor always from inflammation of the nasal cavities, but in very many instances, to my certain knowledge, it is from inflammation of this very part of the head. I ask, why is it not the most likely place to produce just this kind of a disease?

These cavities and the sinuses connected with them are situated immediately under that portion of the brain that performs the mental functions. They are separated from it by a very thin plate of bone, and are very intimately connected with it by both blood vessels and numerous nerves. As most of the blood vessels in these chronic cases have for many years been congested to such an extent that they are from 20 to 100 times their normal diameter, the nerves of this neighborhood as well as other nerves connected with them, that have a great influence on the whole system, must be affected in the same proportion, and they in turn have marked effects on the function of the organs to which they are ultimately distributed.

That this is true is attested by the symptoms of every person who suffers from chronic catarrhal inflammation of the nasal passages, and prominent among these changes, is that of the disposition. It is a very frequent occurrence for such persons to exhibit great irritability, discontent and dissatisfaction, without apparent cause.

It is well known that a chronic complaint effecting any one of the extremities has the effect of producing an irritability of the disposition; how much more likely then will a long continued inflammation, situated immediately under the anterior portion of the brain produce a change in its function, the mind. Show me the man who does not have this inflammation and I will show you a man whose mind is normally clear.

Is there any person who is mentally affected and has healthy nasal passages?

There may be. I do not say that there is no such a person, but I do say that I have not seen him.

Does it follow that every man who has a normally clear mind is also perfectly healthy in his nasal cavities?

Not any more than it follows that every man who passes in a rapid gait before your door is perfectly healthy, some one of them may be attacked by sickness or even may die before night.

Does it follow that every man affected by nasal inflammation must have some of the same mental disability that the professional and business men have who are addicted to excesses?

Not any more than that every man who has been shot through the body, the brain, or the heart will die, but most persons with nasal inflammation are so affected mentally, and most persons thus shot die therefrom.

Does it follow that any man may be affected seriously, mentally, by apparently a slight nasal inflammation?

Yes, just as some persons are killed by trifling accidents.

Are there not a large number of men who commit these excesses, apparently as healthy as are those who have not committed the excesses?

It is well to use the words "apparently healthy" in this question, for no such person can be healthy. It takes a longer time for these excesses to injure some than it does others; but every person, without exception, is injured by them when their use is continued long enough.

Questions like these usually come from young men. I do not say young men as though it was a crime to be young, but because such inquires are the expressions of these inexperienced individuals. That men are apparently healthy while addicted to excesses, is to them a guarentee that they also may indulge in the same excesses with impunity. Their statement of these apparent facts, pointedly indicate that they want a good excuse to continue habits that at the present time are a pleasure only.

Who hears of these men after they have been broken down from the result of excesses; may be not more than one in fifty of them are known to the public, yet this one, in all probability, has done more harm, in one month, to young men by his pernicious example and his ability to appear uninjured by his excesses, than he can correct by his daily regrets expressed during the last few years of his wretched life. It is the active, the apparently healthy,

that are heard and seen, they are pointed to as proof of the harmlessness of the excesses, the mentally and physically wrecked ones are out of popular sight and hearing.

Article XXXI.

Report of a Case of Double Colles' Fracture.

By Jno. H. McIntyre, A. M., M. D., of St. Louis, Mo.

Until I happened to notice a report of a case of double Colles' fracture of the radius, in an issue of the *British Medical Journal* of last summer, I did not appreciate the exceeding rarity of the accident.

In looking over "Hamilton on Fractures and Dislocations," Sixth Amer. Edition, Page 298, I find that of the one hundred and twenty-seven cases of fracture of the radius which he reports, that one hundred and five are Colles' fracture; he gives precise information of the number occurring in males and females, of those occurring in the right and left arm; but to my surprise he does not mention a single case of Colles' fracture occuring in both arms occasioned by the same accident.

For this reason I am induced to place upon record the following hitherto unpublished case, which occured on the morning of January 12th, 1876 during my residence in Richmond, Indiana.

Ossian C. Moon, æt. 19, tall, slender, weight about 130 lbs, attempted to repair a leak in the roof of a two story building, which being wet and covered with sleet, caused him to slip down to the eaves, and fall to the ground.

I saw him half an hour after the occurrence of the accident, and found him suffering considerably from shock, with several severe bruises, and with what most engaged my attention a most marked and well defined Colles' fracture in both the right and left arms.

With the assistance of Dr J. E. Taylor, I proceeded to reduce the fractures, putting, for the sake of the experiment, one arm upon the curved pistol splint of Day, the other into the molded felt split of Ahl after which he was quiet comfortable.

At the end of a fortnight he expressed such a decided preference for the pistol splint, that I was induced to remove the felt splint from the arm with which it was dressed, and apply to it, also, the curved pistol splint, which was retained with comfort and satisfaction until the cure was accomplished; no appreciable deformity resulting.

As I had lost sight of the patient for several years, early in February of the present year I addressed a letter to his father, Mr. H. C. Moon of Richmond, Ind. enquiring in regard to him, I had the satisfaction to receive the following letter from the young gentleman himself.

Oshkosh, Wis., Feb. 23rd, 1885.

Dr. J. H. McIntyre.

Dear Sir:

I have just received from Father your note enquiring concerning my arms, etc.

The accident occured the 12th of January, 1876, if I'm not mistaken, and I was ninteen years old the 31st of August preceeding. The arms have never given me a moments trouble, since you *turned me loose*, which has been a lucky thing for me, as arms are very handy things to have in the practice of Dentistry. Am practising dentistry here in Oshkosh, and have been here for nearly four years.

If there is any other information I can give you concerning the case, I shall be glad to accomodate you.

Resp'y, Yours,

O. C. Moon.

The above sufficiently explains his present condition.

614 Olive St.

ARTICLE XXXII.

THE GENESIS OF ORGANIC SUBSTANCES. By HIRAM CHRISTOPHER, A. M., M. D., Professor of Chemistry in the St. Joseph Medical College, St. Joseph, Mo.

[CONCLUDED.]

Assuming that elaborated sap is a homogeneous quarternary compound, there are only two conceivable methods by which the lower series of organic substances can be formed in organisms. They are either debris or excretions resulting from cells when

forming the highest compounds found in plants, or from the action of special cells which form from the common fluid each grade or series of organic substances, that is to say, that one class of cells forms albuminoid compounds, another, ternary, and another binary compounds. This is Carpenter's view. He says, (Comp. Phys. p. 379) "Now the cause of the immense variety of these products that presents itself in different plants, and in different parts of the same plants—the fixed and volatile oils, resins, gums, coloring matters, alkaloids, acids, etc. etc.—no other account can be given than that each component cell generates its own peculiar products at the the expense of the nutrient material supplied to all alike, just as among unicellular plants, each species may form a distinct organic compound." This latter method would require a specialization of cells not only for the several series, but also for all the distinct compounds found in living organisms. Surely a cell that forms an alkaloid from the circulating pabulum can not form also an acid; nor one that forms resins produce sugar. All that we know of cell action leads to the conclusion that their products are uniform and invariable in the normal state. Besides, there are facts which warrant, if they do not necessitate, the conclusion that the lower series are normal products downwards, the ternary arising from the action of cells on the quarternary sap and the binary from the same, or from cells acting on the ternary series, such as are concerned in the vital operation of the living cells. When sugar is subjected to fermentation we have, as products, the growth of a living organism, the cause of the process, and alcohol and carbon dioxide. The ferment is a living cell, and the substances fermented are a quartenary and a ternary compound—an albuminoid and sugar, and the process nutrition. Sugar is susceptible of fermentation only when an albuminoid substance is present on which the living organism more directly feeds. These conditions are very apparent in the germination of seed. The embryo lies imbedded in albumen and to this lies adjacent starch. When the physical conditions necessary to germination are present, the embryo feeds on the albumen which dissolves in the water present, and acting as a catalytic or disastasic body, it causes the starch to undergo an isomeric change whereby it is converted into a soluble ternary, as dextrine or sugar, and is then appropriated to the substance of the plant. The living organism concerned in fermentation correponds to the embryo of the

seed, which, in nutrition makes use of the albumen and sugar present, and as debris or excretion of the development of the organism, carbonic dioxide and alcohol are given off. Whether all these products come from the sugar alone or from both sugar and albumen, has not been determined, since the assumption, that they come from the sugar alone, has been taken for granted and thought satisfactory. But the decomposition of sugar in fermentation is not nearly so simple a process. Other ternaries are found with the alcohol. "According to Pasteur, glycerine, succinic acid, cellulose fats and occasionally lactic acid, are observed among the products of alcoholic fermentation" (Fownes) Since there is cellulose in the plant developed, we might infer that cellulose must be produced during the process, and sugar is the more probable source of this substance. The albuminoid breaks up in the process, and, as the debris or excretion attending its assimilation by the bioplasm of the living cell, other ternaries appear with the alcohol. The starch of the seed forms cellulose by a like process, the albumen present contributing to the reproduction of the cells—to an increase in the quantity of living matter in the plant by there production or multiplication of living cells, and the starch to cellulose at least. Hence we may conclude that both the quarternary and ternary compounds contribute to the nutrition of the organism, and in the process, that the albuminoid gives rise to ternaries or debris, and the ternary, to a lower ternary—alcohol, and a binary—carbonic acid. And even the alcohol may be regarded as a binary, the ethyl hydroxide, ($C_2 H_5 OH$) corresponding in structure to the potassium hydroxide (KOH.) So that we may suppose that nutrition gives rise to ternaries from quarternaries, and to binaries from ternaries when both are involved in the process of nutrition—when the molecules of both are broken up at the same time in this process, each contributing a part to the several structures of the living organism. Hence, in the process of nutrition, we have produced living matter and formed matter, one living and the other not-living; the one an upward product and the other a downward product, ranging from albuminoid compounds to the hydro-carbons,—from quarternaries to binaries. Dr. Carpenter states simply the fact when he says that all organic substances found in plants are produced from the one common source—the elaborated sap. But whether by the action of specialized cells is not so evident. On the contrary, the facts observed in fermentation

go to show that there is no such differentation of cells beyond that of reproduction.

It can not be determined conclusively whether alcohol is formed from sugar or from the albuminoid; but since alcohol is an organic product of a lower grade than the class of ternaries to which sugar and starch belong; and since the latter are derived from albuminoid compounds, it is very probable that alcohol is an excretory product from the assimilation of sugar. This supposition finds countenance from the fact that there is a gradual descent of organic matter from bioplasm to hydro-carbons. The association of atoms in an organic relation in molecules would appear from this much more permanent than is generally supposed; and it also appears this they give up this association only by degrees under the operations or influence of the same force that brought them together in the living cells of plants, and in the vital operation of nutritive cells. The change, however, in organic molecules, which take place during nutrition, lie beyond the limit of our means of investigation, and the best view that we may be able to form of vital processes, amounts to almost nothing more than a rational conjecture.

The presence of hydro-carbons in plants is to be ascribed to the vital operation of cells. This seems as possible as the production of carbon dioxide and water. The former we have in fermentation and the latter in the living cells of animals, both carnivora and herbivora. The hydro-carbons, however, being organic substances, are formed only in plants. These lie on the border of the two kingdoms of nature. They differ from carbon dioxide in having hydrogen instead of oxygen, and from water in having corbon instead of oxygen. They are so nigh the inorganic realm that a compound of carbon and hydrogen may be formed directly by chemical manipulation. Still, in nature, they are all of organic origin, the final debris of cell action on substances that are the subjects of such action.

The gradual degradation of organic compounds, and the consequent genesis of the lower series, appears more conspicuous in animals than in plants. As respects the operations of living cells, these are the same in both with the difference that, as tissues and products are more abundant in the former, and subserve a purpose in the organism, we may expect that there is also in animals a greater differentiation of cells, arising from a greater number of functions. Organic functions reach perfection in the

highest animals; and since they are so numerous and diverse, as well complex and complicated, a differentiation of cells would seem to be an absolute necessity to meet this great diversity. As functions differ, so do organs, and as organs differ so must not only their cell-structures, but their structure of cell differs. The cell that generates tears, cannot generate saliva, nor that which generates bile, generate the pancreatic fluid. So of all the various functions and organs of the organism, and of both sexes. On differentiation of structure, though impossible of detection, depends differentiation of function, and difference in the products of the action of the differentiated cell; so that not only are there different organs with consequent different functions and different products, but various proximate constituents of these products. Each secretion has different proximate elements, which are as necessary to the discharge of its functions as are the ultimate constituents of these proximate elements. The difference observed between the most important secretion and also excretions, as respects their composition, both proximate and ultimate, can hardly be explained on any other hypothesis than a difference in structure; and as the various products are the work of cells, the difference in structure must extend to the differenitation of cells, a fact cognizable only by their phenomena. This differentiation respects two different processes.

The source of the tissues is the living matter of cells, the highest grade of organic substances produced by vital action in the process of nutrition. They may be designated as tissue-producing cells. Their material is derived immediately from the blood, and is the substance prepared for assimilation by the digestive process. The excretory products of their action can not be determined. They may embrace the two classes, organic and inorganic, as urea and carbon dioxide, or they may be albuminoid products capable of becoming pabulum for cells which produce a lower grade of organic substances, or material for the formation of secretions by secretion cells. Experimental research can not reach that field of cell action, and hence we can only infer. Secretions are evidently a lower grade of organic structure than are the tissues because their proximate elements are nearer in structure the inorganic kingdom; yet they are the direct products of cell action. It may, however, be true that they are the results of nutrition—the debris-products of nutritive cells concerned in the maintainance and growth of the organs from

which they proceed. Here, of course, we are in the field of conjecture, though it may be rational. We know only that secretions are not paralell structures with tissues.

Farther removed from tissues, and nearer the structure of inorganic substances are excretions. Among these we have quarternary and ternary substances, and also inorganic binaries; urea of the first, diabetic sugar of the second and the phosphates of the third. As products, these do not originate with the kidneys. They are not the products of the action of kidney cells: but substances formed elsewhere and simply removed from the circulatory fluid by a physical process. Where these substances are formed is not known: but they are certainly the products of cell action; but whether cells of nutrition or secretion, in which albuminoid substances are the material employed in their vital operations, is what can not be determined, or at least what has not been determined. It is, perhaps, more probable that excretory substances of a nitrogenous composition are the products from nutritive cells, since some are found in structures that are not secretory, as creatine in muscle and the brain. Various substances, indeed, are found in the blood, which are not generated there. Excretory as to origin, they are thrown into the blood in order that they may reach organs of elimination. True excretory substances reach the external world through the various emunctories of the organism; but in what vital cells produced we do not know. Some are supposed to be produced by ferments, but chemical experiments on organisms and tissues after death, are attended by circumstances which cannot but throw a doubt over these conclusions. This much we know of cell action: growth, reproduction and the production of formed matter. By the first, the organism increases in mass by the increase of those organic substances that perform a function or subserve a purpose in the operations of the organism, tissues and secretions, and by the second the vital units are increased in number. Besides, we can readily understand that excretory products are formed during these operations, but how and where are matters of only rational conjecture, based on experiments and observations made on the organism, before and after death. It may, indeed, be believed on general principles, that no changes take place in the chemical constitution of organic substances in living organisms under the influence of physical chemism; but only when they are subjected to vital action in living cells. I say, on general princi-

ples, because the facts we have are so clouded by the old view that organic substances are readily decomposed under the action of physical agents, that such experiments are really indeterminate, and without the necessary significance to form the ground of a rational conclusion. Even the action of ferments, under the common view held of them, is not chemical. They are supposed to be organic substances, capable of exciting atomic changes in molecules without decomposition and with decomposition, but so little is known of the process that nothing really can be affirmed respecting their operation. Thus the sugar found in muscle is ascribed to the action of a ferment-amylotic; and "other hypothetical ferments have been surmised to exist in order to explain the processes going on in muscle during activity and vigor." All the supposed ferments are hypothetical. The action of cells can account for the presence of all substances found in living organisms as their primary genesis. Catalytic action may obtain in animal organisms; but the fact has not been placed beyond question. Substances found in muscle either at rest or in exercise can not be declared to be constituent elements of the muscular tissue, because their presence is contingent on the condition of the muscles. It must be then, that all such organic compounds, whether quarternary a ternary, are true excretions, and not elementary or proximate constituents of the tissue. So of substances found in other tissues under like circumstances.

Excretory substances must be formed throughout the organism or in localities, and there by specialized organs. If in the former manner, they are removed from the organism by organs of simple transudation If in the latter manner, then they must be regarded as being eliminated by the action of the special organs, in which the substances are generated, as in secreting organs and then discharged into avenues which lead without the body. In this case, the normal constituents of urine must be regarded as formed in the kidney. But this is not the fact. Then, as the kidneys are simply organs of transudation, excretory substances must be formed throughout the organisms; and since organic substances are known to undergo no change except under the action of the vital agent in living cells. excretory compounds must be products of their action. So we reach the general conclusion that organic substances of all series are the products of cell action, except, probably, those which are insoluble

in the fluids of the organism, as cellulose, and which may be the products of a diastasic compound from some corresponding substance which is soluble, and which may be allied by some form of chemism to the insoluble compound. The genisis, therefore, of organic substances is to be ascribed to the agency of the vital force, whether these substances are of an upward or downward structure as respects their elementary constitution. The upward action continues until pabulum is converted into living matter and the downward action continues until the living matter reaches the lowest series of organic compounds, or passes through the higher series into the inorganic world during the changes which organic matter undergoes in the living cells—the field of the life agent. Thus it appears evident that organic substances are not only *produced* by vital action, but also reduced to the inorganic realm by the same means during which operations physical agents are but adjuvants of the processes and not the generators and controllers.

Clinical Reports from Private Practice.

ARTICLE XXXIII.

CHRONIC CATARRH WITH DEAFNESS CURED BY THE WARM SPRAY METHOD. By CHAS. A. S. SIMS, M. D., of St. Joseph, Mo.

Jno. A—. æt 21 years, presented himself at my office for treatment Dec. 5th, 1884. He was a marked brunette. He complained of total deafness in the left ear and partial deafness in the right; also severe tinnitus in both. The history of the case was as follows: Five years ago the patient was bathing in early spring; the cold water entered the left ear filling the external auditory meatus and in less than 10 minutes tinnitus became severe and has never ceased. An acute attack of myringitis came on soon and total deafness followed in about 3 months. Patient had also suffered for about 9 years with catarrh of the pharyngo-nasal cavity, the inflammation extending throughout the entire course of both of the tubes of the ear.

Examination revealed a very bad condition of the throat, showing plainly an aggravated case of follicular pharyngitis with thick mucous patches on the walls, mostly in the poterior superior region; the whole pharyngo nasal cavity being very much reddened. The hearing was tested with a watch which I have for this purpose solely; it is a 70 inch watch, that is its ticking can be heard by the average ear at a distance of 70 inches. I found hearing in left ear $\frac{0}{0}$ and in right ear $\frac{6}{70}$ or 6 inches from the auricle was the greatest distance he could hear the watch. Examination by the speculum showed in the left ear the drum-head completely gone, with the exception of a small segment in inferior posterior region. The middle ear being visible. There was a profuse discharge. Timpanic membrane in right ear, opaque. The pyrimid of light was not seen, the membrane being retracted to a great extent. Here let me state that I used the turning fork as directed by Dr. Thos. F. Rumbold in diagnosing ruptured membrane and when pressure was made on the tragus, the fork held between the teeth there was no difference of sound appreciated in the left ear.

I gave the patient a treatment after which I inflated the right ear through the nose, having the patient phonate the word "what"; I then held the watch to the right ear and the hearing was $\frac{12}{70}$ but in 15 minutes was back to or about the same as at first. The patient was given a treatment with spray producers nos. 4, 5, 3, 1, 2, in the order as named, (the no. 2 being used in the anterior nares) for twelve consecutive days, three every other day for a week, and then two treatments a week for 2 weeks, making 24 treatments in all; which effected immediate relief and at the close of the course a cure of all catarrhal symptoms.

The hearing, especially in the left ear where the drum was destroyed, forms the most interesting part of this report. There being in this ear several ulcers, I used a wash containing about ½ grain zinc sulphate to the ounce of water and ordered the ear to be washed night and morning with this solution. On Dec. 23rd, I was testing the hearing in the right ear and, while the patient had his attention attracted from me, I held the watch about a half inch from the left ear. He immediately turned his head and said he could hear in that ear. I examined it with the speculum and to my astonishment a complete drum head was formed but it was so delicate and transparent that it resembled the thinest possible scale of mica. I told the patient to wash the right ear but not to touch the left. I had not inflated the tubes for a week previous, fortunately for the patient, for I am confident the drum in the left ear would have been ruptured. Dec. 25th patient came. I examined the left ear with the speculum. The drum was ruptured very badly. I questioned him and found he had syringed it the night previous and that he knew something was wrong with it. Jan. 1st examined left ear again and was very much gratified to find the membrane reproduced. This is a recovery which is seldom met with, considering the length of time of the loss of hearing in that ear, being nearly 5 years. At the close of the treatment the hearing in the right ear was $\frac{38}{70}$ and left, $\frac{10}{70}$ with all the catarrhal symptoms gone.

The hearing in the right ear did not improve as I had anticipated by $\frac{3}{70}$; but taking all in all it is, I think, a case which is well worth bringing before the profession, and especially to the members of the American Rhinological Association. In conclusion I will say, nothing has ever given me the satisfaction the spray treatment has, and when not properly given you need not expect good results.

ARTICLE XXXIV.

TYPHOID FLUX. By J. S. TATUM, M. D., D. D. S., of Harreldsville, Ky.

In the incipient stage of this dread disease it is a good plan to give:

℞ Ol. Ricini.....f ℥j.
Ol. Terebinth.....
Tr. Opii.....aa gtts. v.
M. Sig. At a dose.

When the bowels have moved I give:

℞ Fld. Ext. Jamaica Dogwood (P. D. & Co).....℥j.
Fld. Ext. Paracoto Bark .....gtts. x to xx.
Aqua Fervens.....q. s.
M. Sig. At a dose, every two or four hours, as required.

The ext. of dogwood seems to act better than the opium, having the anodyne properties without the prostrating nercosis of the latter.

In some few cases I have used:

℞ Bis. sub nit.....grs x.
Gum camphor.....grs v.
Plumb. Acet.....grs ss to j.
M. ft.
M. Sig. At a dose and repeat in two or six hours until the bowels are confined.

I have found the dark extract of pinus canadensis (Rio Chem. Co.) in teaspoonful doses, three times a day or oftener, a very servicable remedy, which has very seldom failed me.

Another valuable adjuvant in all cases of flux is, tablespoonful doses for adults and teaspoonful doses for children of warm mutton suet every four hours. In connection with this suet I advise my patients to use freely of an infusion of ulmus. The tympanitis may be relieved by emolient poulices, terebinthinate applications, chloroform liniment, etc.

For the cramping and griping pains in the bowels I use:

℞ Tr. Capsicum.
Tr. Opii.
Tr. Camphoræ.
Tr. Cinnamoni.
Tr. Rhei.
Tr. Zingiberis.
} Equal parts.
M. Sig. 25 to 30 gtt. for an adult, smaller doses for children, well diluted with some syrup or water, given as required.

Sulphate of quinia is disadvantageous, unless the disease is complicated with malaria. The diet is of great importance and I always feed my patients something, no matter how low he is.

Well cooked mutton, oyster or chicken soup, toasted bread, coffee or black tea can be used in this connection. Black tea is very useful owing to the amount of tannin it contains.

The bed clothes and wearing apparel of the patient should be changed once in twenty-four hours. Slacked lime should be sprinkled around and under the bed. I am of the opinion that this disease is contagious and that it is propagated by some specific germ. During the last two seasons I have had in my care a number of cases of this disease and have had very good success with the foregoing treatment; would be glad to hear of any better treatment.

Original Translation.

ARTICLE XXXV.

FROM THE ITALIAN.

SOME CORRELATIONS BETWEEN CADAVERIC RIGIDITY AND THE TEMPERATURE OF THE BODY; Experimental Researches in Forensic Medicine, by Prof. Arnigo Tamassia. From the *Rivista Sperimentale di Freniatria*, Fasciolo IV. Reggio Emilia, 1885. By JOSEPH WORKMAN, M. D., of Toronto, Canada.

In the *Rivista Sperimentale*, 1882, Professor Tamassia published an article on the "Influence of the Nervous System on Cadaveric Rigidity," of which the present may be regarded as a supplementary extension. In the former he endeavored to demonstrate the erroneousness of several of the opinions previously held and promulgated on the subject. We need not here detain the reader by lengthy quotations from that lucid and able production; but it will not be deemed out of place that, before introducing the Professor's late publication, we submit a *resumé* of the conclusions with which he closed the preceding one: they were as follows:

"1st. Cutting the nerves before death, provided it did not pro-

voke convulsive phenomena, had no influence on the progression, intensity, or duration of the muscular rigidity.

2nd. Cutting the spinal medulla before death, when it did not provoke convulsive phenomena, had no influence on the cadaveric rigidity.

3rd. Cutting the nerves and the spinal medulla after death, had no influence on it.

4th. The dependence which would appear to have been suspected by some writers (as Stannius, Munk, Blauer, and Eiselberg) between the nervous system and cadaveric rigidity is explained by the local lesions inflicted on the muscles, and by the surrounding atmosphere.

5th. The law of Nysten may be explained by the greater fragmentation and isolation of the various muscles, and the more intimate penetration into them of atmospheric agents, rather than by the direct influence of the nervous system on groups of muscles.

6th. Cadavéric spasm is one of the phenomena that most frequently follows rapidly fatal hæmorrhage.

7th. These cases of instantaneous death are most frequently followed by prolongation of cadaveric rigidity, to double or triple a time greater than that observed in ordinary cases.

8th. The precedence of health and the instantaneousness of death should be considered as among the principle agencies of the rapidity and prolongation of rigidity."

We shall now, without any prefatory observations, present, as closely as possible to the original text, a translation of Prof. Tamassia's second article.

"The fixing of the exact time of death, from examination of the cadaveric phenomena, is one of the most difficult problems of forensic medicine: the uncertainty, the mutability in its phases, and in its morphology, are such as to render it extremely difficult even approximately to lay down guiding rules. Hence, distinguished men, such as Orfila and Tardieu, were deterred from the undertaking; the former declared the solution of the problem to be *above human power*; the second said that it was a *signal levity* to attempt to infer from cadaveric phenomena the time of death.

"But whilst recognizing the real difficulties of these researches, we are constrained to confess, that so long as we continue in this inert abandonment, not a single step in progress will be made;

and the problem will there remain unchanged, enwrapped in its profound mystery. It behooves us then, if not to charge it in front, to attack it on some of its sides. It is necessary that we disclaim a synthetic, morphological and chronological diagnosis of cadaveric phenomena, and that instead of this we give attention to the minute analysis of the several factors of such phenomena. Penetrating, in this way, the physiology of every isolated element, it is just and logical to expect that from the harmony of the special laws, there will be evolved, as their summary and experimental emanation, a fundamental law, or at the least, its more salient lines.

"It is, therefore, the part of prudence, to confine ourselves to the study of the various agencies of cadaveric transformation, or in other words, to the laws of hypostasis, cadaveric imbibitions, rigidifaction and putrefaction, considered as so many separate phenomena, without any preconceived supposition as to the morphological and numerical relations that may exist between them. In my former works on 'Putrefaction,' and on 'Cadaveric Rigidity,' I aimed at following this course. The present work may be regarded as a continuation of the latter, and it aims at the research of a single and simple problem,—that is, the chronological relation that may exist between cadaveric rigidity and the temperature of the muscles. Having experimentally obtained numerical data, the practical applications may, provided they harmonise with the assumed experimental conditions, acquire the character, if not of certainty, at least that of close approximation, and they may thus furnish safe materials for the general diagnosis of the time of death.

"In the meantime we would premise, that the observations on this subject, to be met with in medico-forensic and physiological literature, are far from concordant, or free from objections. All those of doctrinal form exhibit more or less indefiniteness and pliant empiricism; whilst those of experimental form are extremely limited. Now we find Zacchias to have written the following words, which have been more or less repeated by many writers on legal medicine, since his time.

"'Siquidem corpora gracilia ac exucca, aetate provecta et multo magis senile, temperaturæ siccae, sexus virili, incendio aut bello extincta, *loco frigidiore asservata*, magis ac promptives frigascent ac rigescent, quam corpora obesiora, succi plena, aetate

teneriori, temperaturæ humidioris, sexus feminini in aquis suffocata, et *loco callidiori exposita.*' He thus, in clear terms, tells us that cold hastens, the inception of cadaveric rigidity more than heat; but he avoids giving the limits of either. And, coming to more modern writers, Tardieu says that rigidity may commence when heat is present, and in a slight degree, provided the cooling of the body has not ceased; or, according to him, there is a direct relation between the temperature of the body and rigidifaction. Tourdes writes thus: 'Rigidity is produced as well when the body has been immersed in warm water, as in cold; lying in a warm bed does not seem to retard the appearance of rigidity. Temperatures, either very high or very low, hasten the development of rigidity, which, according to Sommer, will be of shorter duration under the former.' Schurmeyer places in relation the life (irritability) of the muscle, with the rigidifaction, and concludes thus: 'Muscle, in order to be maintained in life, requires a certain degree of mean temperature. If exposed for a certain time to a temperature much above or below that of the mean, it loses its irritability, and rigidifies; this occurs the more rapidly, the more considerable the difference between the temperature of the muscles and that of their surroundings.' Hoffmann, in his splendid memoir. 'On cadaveric phenomena,' writes, 'taking into account the result of experiments relating to rigidity provoked by heat, it may be held as securely established, that high temperatures, such as occur in insolation, fulmination, scalds and burns, notably hasten the inception of cadaveric rigidity.'

"Taylor says, 'temperature seems principally to influence the duration and intensity of the rigidity. Bodies drowned in cold water rigidify sooner, and remain so longer. Water is a better conductor of heat than air, and it tends to retard putrefaction.' Liman limits himself to the announcement that low temperatures and intoxication undoubtedly favor the protraction of rigidity. Coming to still more recent writers, we find Prof. Maschka writing; 'Heat seems to hasten the inception of rigidity, for in bodies protected by warm clothes, by blankets or other coverings that conduct heat badly, rigidity commences sooner than in others.' And again, he says, 'Cold within certain limits (when it does not produce congelation) seems to prolong the duration of rigidity, whilst heat and other circumstances favoring putrefaction, certainly shorten it. * * * With congelation rigidity ceases. In cadavers (of drunkards), lying in cold water,

rigidity, in its outset and its progression, does not differ from other cases.' Finally, an English author, Meymott, who in his preface promises new researches and original experiments, differs a little from preceding writers, in asserting that 'rigidity is independent of temperature, and that it begins first in those muscles which longest retain their heat. Congelation does not destroy muscular irritability nor the possibility of becoming rigid, though cold retards its manifestation and lengthens its duration.'

"I have given, almost literally, the preceding extracts from the most renowned treatises, certainly not to display my erudition (which would be but a short matter), so much as to show the discrepancies, which, on a very small point of doctrine, are exhibited by writers, who never directly experimented. It is easy to infer what sort of guidance the expert can look for, in practical contingencies, from these leaders. Assertions totally destitute of proofs, and frequently in conflict with each other, must necessarily render the response to the enquirer more doubtful and more deceptive.

"It remains now to see (at least in summary), what has been recorded by those authors who have instituted observations and experiments of their own, in this matter. But here the fare is but meagre, unless we wish to fall back to the works of Fontana, Hunter, and Louis. Among the most authoritative, and not too ancient, we have the works of Guntz, Sommer, Krause, Pickford Kussmaul, and, as the latest, the critico-experimental studies of Herrmann. According to Guntz, the cadavers of the newborn, immersed in a tepid bath, (from 64° to about 98° Fahr.) do not rigidify; a temperature between 32° and 59° Fahr. favors the inception of rigidity, and prolongs it; the cadavers of robust subjects maintain their rigidity for a relatively longer time, when they are exposed (in the air) to a temperature oscillating between 35° and 41° Fahr.

"Sommer has, however, shown that the operation of Guntz is incorrect, that the bodies of the newborn do not rigidify in tepid water; he, having immersed two infants, born asphyxiated, in a bath of 90° to 100° F., found that after 3 or 4 hours the bodies began to rigidify, reaching the acme towards the 6th hour, and passing away after the 11th. He also showed that bodies lying in an atmosphere of 59° to 62° Fahr. become rigid more rapidly than others exposed to an atmosphere of 77° to 82° F. According to him the ancients were in error in holding that

rigidity was due to the lowering of the temperature of the body, for rigidity is usually manifested not only when its own natural heat has not been much lowered, but even when an exceptionally high temperature has been developed and maintained in the body, consequent on pre-existing morbid conditions before death, as he had himself practically occasion to observe. Pickford found that at a temperature varying between 112° and 152° F. the muscles of a frog rigidified in one to two minutes, and that when exposed to a temperature of 178° they became rigid in ¼th of a minute. Krause observed that cats, exposed by him at a temperature of 52° to 53.6°, became rigid after three to four days (?): but another cat, exposed to a temperature of 86° to 89.6° became rigid in ¼th hour, and relaxed in about 7 hours; another cat, however, at the same temperature did not became rigid till after 50 minutes, and another (killed by hanging) in a temperature between 33.5° and 36.5° commenced in 2½ hours, and was completely rigid in another hour. Finally, Kussmaul, taking these experimental data, formulated the conclusion, that when the muscle lies in a surrounding whose temperature differs from the mean, it loses its irritability and becomes rigid; and this rigidity arises the more rapidly, the greater the difference between the temperature of the muscles and that of their surroundings."

[TO BE CONTINUED].

Translations.

Article XXXVI.

Excerpts from Late German Journals. By S. Pollak, M. D., of St. Louis.

Translated for the Journal.

Bacilli in Cholera, by R. Koch. (*Deutsche Med. Wochenschrift*).—As a supplement to previous communications on this subject it is stated, that Koch has succeeded in proving the pathogenic properties of the comma bacillus in animals. The experiments of Rictsch and Nicati were made by him on dogs and guinea-pigs; he injected a small quantity of a pure culture of comma bacillus into the duodenum of these animals, without ligating the ductus choledochus, as Rictsch and Nicati did. Almost all these animals died in 1½ to 3 days; the jejunum was as altered as in fresh cholera cases and contained a prodigeous quantity of cholera bacilli.

He does not recognize the presence of cholera bacilli in any but true asiatic cholera, and reiterates his former teaching: "Cholera bacilli are specific bacteria, exclusively the property of cholera Asiatica."

A New Symptom and a New Theory of Locomotor Ataxy, by Althaus (*Central bl. f. Chirurgie.*)—The frequency with which tabic patients present themselves at surgical clinics, under pretext of rheumatic pains, made it possible to point out an early symptom which almost invariably indicates myelitis. It is the *impossibility of going backwards.* The patients appear fastened to the ground, they fear to move, lest they fall. They advance forwards with ease, but are awkward in any attempt to move backwards.

Dr. Althaus attention was called to this fact by a painter, who complained of the utter inability to step backwards to inspect his picture.

Consequences of the Extirpation of the Spleen, by Moster.

(*Deutsche Med. Wochenschrift*).—Experiments made on 30 dogs, lead to the following conclusions:

1. The spleen is not absolutely necessary to the life of an animal.

2. After extirpation, as well as after artificial atrophy of the spleen, its function is assumed and performed by other lymphatic organs.

An important change takes place in the medulla ossium long after the removal of the spleen, there are found alterations in it resembling those of leukæmia. A hyperplasia of lymph glands has not been seen.

3. The vicarious activity of the lymphatic organs, which seems dependent on many external influences, is not always complete in the de-spleened animals. Only after a month or longer is a qualitative change in the blood noticed. Hence, the direct influence of the spleen upon the blood may be assumed, especially in the neoplasm of the white and red blood corpuscles.

4. Extirpation of the spleen does not affect the digestive properties of the stomach and pancreas, which is proven by chemical analysis, and by the voracity of de-spleened animals.

STRETCHING OF THE INTERCOSTAL NERVES. by Lesser, (*Central blatt für Chirurgie*).—In a case of neuralgia of the intercostal nerves from the 4th to the 10th ribs, in a woman aged 61 who suffered also from double mastodynia. The technic of this operation is very difficult, and required a long practice on the cadaver, to acquire sufficient topographic anatomical knowledge and dexterity for its performance. However, it was successfully performed, and the patient was dismissed in 11 days after the operation.

The mammæ presented a very remarkable feature which, though very atrophic, excreted a milky fluid from the nipples on pressure, which increased in quantity during a paroxism of pain. Under the microscope it showed many fat-drops which contained numerous small round cells.

The patient died several months after her return home, it is not known whether the pains recurred or not.

DRUNKENESS AND DIPSOMANIA. by Prof. Kirn, (*Deutsche Med. Ztg*).—Dipsomania is a periodical melancholy, is characterized by sadness, headache, sleeplessness and incapacity to work; is

overcome by an anxiety; then only, the desire rises to get rid of all this by intoxication. The dipsomaniac drinks with relish and without satisfaction, yet he must drink. Sometimes, after long and much drinking, symptoms of acute or chronic alcoholism may set in. The differentiation of alcoholism and dipsomania depends upon the following points:

1. Dipsomania may be from heredity, or from previous nervosity, from peculiar psychical tendencies, or the advent of puberty and especially of the climacterium, while drunkeness may be wholly independent of any of these causes.

2. Dipsomania runs in typical attacks, distinctly alternating with intervals of sobriety, while the excessive drinking of the potator has no periodical limit. Abstinence, here, is only the result of exhaustion, of indisposition or want of food.

3. The attacks of dipsomania are induced by psychical depression with a corresponding paræsthesia, while the habitual drunkard resorts to the glass without such prodromal symptoms.

4. Psychical alcoholic disturbances will set in at the acme of the attack, with the first, while in the latter they appear at the very outset.

5. The dipsomaniac is disgusted with his morbid impulses, battles bravely against the recurrence, while the enfeebled will of the drunkard evinces no energic opposition to the vice. Therapeutically, K. recommends 0.06, of opium 3 times at the dawn of the prodromal symptoms.

(A hypodermic injection of 5 drops of 4 *per cent.* solution of muriate of cocaine has had a most happy and lasting effect in 2 cases of dipsomania of very long standing and of a very aggravated character. It was at first used daily, now only when prodromal symptoms appear. A perfect respite of 6 weeks has been attained, the attacks seem to be perfectly under control).

HOT WATER IN ASPHYXIA OF THE NEW BORN. by Gatschkowsky, (*Russkaja Med.*)—In the following cases, the use of hot water was eminently successful. 1. The child was born during an eclampsia of the mother. Face and body were cyanosed. Douching with cold water, swinging of the body up and down for nearly 20 minutes were negative. Plunging into hot water —all but the head—was then resorted to. A deep inspiration instantly ensued, followed by loud cries. Next day the child was quite well.

2. The second case was a podal delivery of an asphyxiated child. It was kept ten minutes in a tepid bath without drawing a breath; hot water was then poured into the bath until it became unbearable to the fingers, when the child commenced crying.

PATHOLOGY OF AMBLYOPIA SATURNINA, by Dr. Stood, (*Græfe Archives.*)—Lead narcotism is earliest manifest in insufficiency of accomodation, even before the blue lines in the gums are seen; it seems that the toxic effect of lead is first felt in the ciliary muscle. Patients complain of asthenopia, persistent reading is fatiguing; gradually acuteness of vision, light and color perception are waning; the field of vision becomes contracted. After that, colics, constipation, loss of flesh and strength, especially of the flexor muscles, supervene. Then only the ophthalmoscopic revelations become positive: hyperæmia and tortuosity of the retinal veines. These symptoms are clearly those of neuritis optici retro-bulbaris peripherica saturnina. Iodide of potass and rigid diet and hygiene will soon afford entire relief.

ARTICLE XXXVII.

EXCERPTS FROM LATE FRENCH JOURNALS. By S. POLLAK, M. D. of St. Louis.

Translated for the JOURNAL.

CHLOROHYDRATE OF KAIRINE. (*Le Progres Medical:*)—The properties of chlorohydrate of kairine have been the subject of many experiments in Germany, where it has been frequently employed as an antipyretic in pneumonia, in typhoid fever and in relapsing fever.

M. Brouardel and Loye have communicated to the Societe de Biologie the results of their studies of the physiological action of this medicament. They have demonstrated the process by which kairine lowers the temperature. It acts upon the blood, by profoundly altering the composition of the hæmoglobine, and thus diminishes the respiratory capacity and organic combustion.

In contact with kairine, the blood becomes immediately of chocolate color. In comparing its absorbing power of oxygen,

before and after the introduction of kairine, considerable modifications will be observed; the blood does not take up any oxygen, and the spectroscope clearly indicates a destruction of the hæmoglobine, this is the chemical effect upon the blood.

Its physiological history, its influence upon respiration, the circulation and nutrition is the work of M. Consience.

In kairinized animals there is always trouble in the respiratory rythm; these important modifications in the respiratory phenomena, relate to chemical actions. The production of carbonic acid diminishes progressively, and in proportion the temperature is lowered. But, as soon as the action of this remedy is exhausted, the quantity of carbonic gas increases and the temperature rises.

The variations in the composition of urine are still more remarkable, especially that of urea. Give a healthy dog daily one gramme of kairine, the quantity of urea will lesson from day to day, in the proportion of 9. 4. 3. 2. Discontinue the use of kairine, the production of urea will increase, 1. 2. 3. 4.

All these phenomena are evidently subordinate to the action of kairine upon the blood; this action explains the cyanosed lips, the blueness of the lungs, abundant salivation and paresis, etc.

Its therapeutic value is problematical; there is hardly a disease known, in which we should aim at the destruction of the hæmaglobin, and restrain the field of hæmatosis.

EFFECT PRODUCED BY THE INTRODUCTION OF A BED BUG INTO THE EAR. by Dr. Le Grand, (*Paris Medical.*)—Mme P. woke up in the night with an excruciating pain in the left ear. She also felt something moving about in the auditory canal. The ear was immediately filled with warm water, and in half an hour the pain and movement subsided.

However a dull pain and difficulty of hearing remained. Next day, a medling neighbor poured some sp. of minth. in the auditory canal, which caused immediately intolerable pains which lasted two hours, followed by periodical lancinating pains, deafness and tinnitus. On inspection with the reflecting mirror, the dead bug was seen laying hard against the membrana tympani, and was easily removed by syringing. The entire membrana tympani was red and thickened, the details could not be made out, except the angle of the external apophysis of the malleus. There was a violent inflammation of the membrana tympani,

caused, doubtless by the instillation of the alcoholic minth. and by the traumatism of the bug by reason of its suction of the blood of the membrane; the pain is more violent than is being produced by the introduction of other insects, which move about and titillate with their paws. The filling of the ear with warm water, with the view of drownding the insect, was quite proper, but the instillation of sp. minth. was deplorable. A simple injection of warm water will always suffice to drown, dislodge and bring away the offending insect.

The ear got well in a week with no other treatment than inflation with the Politzer bag, and spreading over the membrana tympani a pomatum of boric acid with vaseline.

ARTICLE XXXVIII.

Department of Dermatology and Syphilis.

CONDUCTED BY

A. H. OHMANN-DUMESNIL, A. M., M. D., Professor of Dermatology and Syphilis, St. Louis College of Physicians and Surgeons, of St. Louis.

PSORIASIS.—Dr. E. Bouchut, editor of *Paris Médical*, regards oil of cade as the best application for psoriasis; others there are who much prefer chrysarobin and they are justified in this by the many good results following its application. Auspitz's method of applying it with traumaticin is too well known and has been already sufficiently explained not to require any further mention. M. Besnier, of Paris, has somewhat modified the procedure by applying the chrysarobin, dissolved in chloroform and then painting over this plain traumaticin. This method permits the agent to be well rubbed in before being covered by the protective layer of gutta percha. The chrysarobin is employed in the strength of 10 to 15 *per cent.* The author of the method insists that it should be literally rubbed in and should be repeated three or four times weekly, the attending condition governing this to a great degree.

LARYNGEAL LUPUS.—In 109 cases of lupus admitted in the hospital at Copenhagen during six years, Dr. Haslund found ten of the larynx, in nine of which the disease existed in the skin. The other case was entirely limited to the larynx and occurred in a young man, aged 16. The epiglottis was entirely destroyed, there being but a narrow aperture left for respiration which became difficult. Tracheotomy was performed and the disease rapidly cured.

ELEPHANTIASIS.—Dr. Robt. B. Morrison details a case of elephantiasis Arabum in the Maryland *Medical Journal* in which he traces the origin of the trouble to syphilis. The left hand and arm are the localities attacked and it appears that, as generally occurs, each œdematous swelling of any extent has been preceded by erysipelas of the tissues usually preceded or accompanied by a lymphangitis or phlebitis. It appears that the patient had also had his extremities frost bitten and this might have been taken for a probable cause. But the absence of any destructive lesions or their marks and the fact that mercurial treatment caused not only the disappearance of the dermatic lesions present but also a decrease in the size of the arm, point to syphilis as the probable cause and is one which has been reconized by Kaposi.

SCABIES.—It has been our boast that the animal parasitic diseases of the skin were, if not entirely unknown, at least of such infrequent occurrence in the United States that we could regard ourselves as almost the most cleanly nation on the surface of the earth. Continental Europe has always been in the lead for the large number of cases of scabies and pediculosis which presented themselves for treatment. Latterly, however, it would almost seem as if we were either developing a larger number of such cases or that more are being observed. We see throughout the medical journals reports of so-called "epidemics" of scabies occurring in different states, whole communities being apparently attacked. Minnesota, Nebraska, Ohio, Wisconsin, Michigan, Missouri and others to hear from are blessed with the itch. Of course, a number of the cases called itch, are doubtless eczema, yet there must be a sufficient number to justify us in calling attention to what may become a serious factor if the little pest is not promptly destroyed and proper means taken to prevent its spread.

PITYRIASIS RUBRA.—Dr. F. E. Woolsey reports the history of a case of pityriasis rubra in the *Physician and Surgeon* in which the beneficial effects of the external application of salicylic acid in squamous troubles of the skin was well demonstrated. The patient was troubled with some œdema of the legs but there was no evidence of heart or kidney disease. He was given liquor potassæ arsenitis, and the parts rubbed with an ammoniated mercury ointment. This treatment was continued for one week without any improvement. Salicylic acid was then added to the ointment and the patient directed to apply it thoroughly twice a day, and ordered a bath to be taken every night, with as much aqua ammonia in the water as could be easily borne. Iodide of potassium was substituted for the arsenic.

Under this treatment the disease gradually yielded and after a period of four weeks he was discharged cured. The only point in connection with this is as to whether the diagnosis was correct. It is well-known that this disease is one of the most intractable that comes in the hands of the dermatologist and the wonderful success in this naturally suggests something else. The point, however, remains that the trouble was a scaly one and that salicylic acid was beneficial, a property of the drug to which we adverted in the last number of the JOURNAL when speaking of the treatment of psoriasis.

ERYTHEMA MULTIFORME.—Under the title of *erytheme polymorphe*, M. de Molenes-Mahon has written a thesis, of which *La France Médicale* gives the principal points of interest. He includes as mere forms of this disease, erythema nodosum, herpes iris, hydroa and acute pemphigus, being quite a radical departure from the accepted views of the majority of dermatologists. In regard to the etiology he combats the rheumatic theory as well as the angio-neurotic theory of Kœbner. He believes that erythema multiforme, observed secondarily in a large number of infectious diseases, is dependant upon a non-recognized infectious state. He believes this to be proven by a large number of facts and proposes to create "infectious" erythema multiforme. The treatment to which he devotes some considerable attention is both general and local and differs but little if any from the methods in general use.

GUMMA OF THE BREAST.—We clip the following from the

Canadian Practitioner: Prof. S. W. Gross brought a case of gumma of the breast before the class last season, which was interesting, both because of the infrequency of its occurrence, and of its resemblance to malignant disease. Gumma of other parts of the body are met with almost every day in hospital practice, but it is extremely uncommon to find this manifestation of the syphilitic poison on the female breast. The patient, who was 28 years old, and appeared to be in good health, complained of trouble in the left breast. Examination showed a cake-like superficial tumor involving the skin and subcutaneous connective tissues. The skin over the tumor was livid in color, and the nipple was retracted into it. These signs apparently pointed to superficial scirrhus. But from the absence of pain, and axillary involvement, as well as the history of a dissolute husband and three miscarriages, Professor Gross concluded that it was a gumma. The woman was put on the mixed specific treatment, and the tumor disappeared in a short time.

SYPHILITIC DISEASE OF THE LUNG.—Dr. William H. Porter presented a specimen to the Clinical Society of the N. Y. Post Graduate School and Hospital, showing a lesion of the lung, probably of syphilitic origin, which might be classed as a syphilitic interstitial pneumonia, pulmonary syphilis of the adult, or syphilitic phthisis. The necropsy of the case showed that both lungs were firmly bound to the chest wall and diaphragm by a thickened and adherent pleura, the right more firmly than the left. Upon section there were found fibrous induration, numerous small and one large cavity at the apex, interspersed with cheesy masses and small granular bodies, which at the time were thought not to be true tubercles. The cavities were absent in one lung. The bronchial glands were enlarged, indurated, and deeply pigmented. The history of the case pointed to syphilis and the patient did well, for a time, on the "mixed" treatment. The clinical history of the case is given in the N. Y. *Medical Journal*, but gives very little positive evidence beyond what could be inferred from the former history and treatment.

GONORRHŒAL ARTHRITIS IN THE FEMALE.—The question itself of gonorrhœal arthritis is far from being decided and some eminent authority has also denied its occurrence in the female. Dr. H. Illowy contributes the history of a case to the Cincinnati *Lan-*

cet and Clinic. After giving the history and treatment he concludes: not only will this disease occur in women, but that it may result from a vaginitis, there having been no urethritis in the case cited. He sums up by saying: "The rare occurrence of gonorrhœal arthritis in females is readily explained. In females, in a majority of cases occurring, the gonorrhœa is confined to the vagina, an organ comparatively non-sensitive and non-absorbent; whereas, in the male urethra, we have a highly sensitive surface provided with abundant nerves in direct communication with the spinal column and any irritation of this surface, be it ever so slight, is quickly conveyed to the general system."

JAPANESE HISTORY OF SYPHILIS.—If our readers will remember, two or three years ago we spoke of the discovery of a Japanese work relating to syphilis and purporting to contain its description and treatment. Dr. B. Sheube, of Leipzig, has lately contributed an article containing the main facts found in this work and a *résumé* is contributed to the *Southern Practitioner* by Dr. H. Berlin. The book was compiled A. D. 808 and is of purely Japanese origin. The various affections spoken of are the bubo, chancre, œdema preputii, phagedenic chancre, the syphilodermata, bone and joint affections, throat trouble, grave tertiary lesions and otorrhœa. The treatment, from what can be translated, appears to have been vegetable. Of course, Americans and Europeans are a little easier now that they have the assurance that the stigma, long bandied between them, of having respectively had the credit of introducing the disease to modern civilization, is pushed a few centuries later and saddled for the nonce upon the most advanced of our Oriental friends.

SYPHILIS A CAUSE OF STERILITY IN MAN.—Dr. E. Goldman writes to the Texas *Courier-Record of Medicine*, that whilst in Mexico he observed that syphilis when transmitted to a white man, by a native, assumed a degree of virulence and manifested itself in such a malignant form that he made it a point to examine the women from whom it was derived. In them the symptoms are comparatively mild and the disease runs an almost latent course. His observations, however, led him still further. He was surprised to find that all the whites who had contracted syphilis from natives appeared to have lost the power of fecundating, through the spermatozoa, the women whom they subsequently

married. He says that: "None of these men bear any signs or symptoms of the disease which once existed; they are in every respect healthy objects; their virile power is not by any means extinct, only their power of propagating is lost; none of them infected his wife. Several of these men are now married in second matrimony, for several years after they had become bereft of their first wives, and the result has been the same—no offspring."

Of course, it would not be justifiable to jump at a conclusion from such meagre premises. Many circumstances might conspire to bring about a state of affairs like this. Moreover, a large number of carefully observed and clear cases would have to be observed to arrive at a safe and tenable conclusion. The whole matter, however, is interesting enough to direct attention to it.

ARTICLE XXXIX.

Department of Microscopy.

CONDUCTED BY

FRANK L. JAMES Ph. D., M. D., President St. Louis Society of Microscopists, of St. Louis.

PETRONE ON THE BACTERIA OF CHOLERA.—In a recent number of the *Gazetta Med. Ital. Lombard*, Dr. Petrone publishes the results of his microscopic studies carried on at Naples, during the cholera epidemic of 1884. In the main they coincide with and confirm the teachings of Koch, but in some important particulars they are at variance with the results claimed by the German school of bacteriologues.

Petrone's method of staining is a modification of the German, and is described in the onset of his article as follows: a drop of the fluid under examination (vomit or stools of cholera patients) is spread evenly over a cover glass which is then heated in the flame of a spirit lamp. It is then dropped into a one *per cent.* solution of methyl or aniline blue in a mixture of 9 parts of water and one part of alcohol. In this it is allowed to remain from 12 to 48 hours, according to temperature, etc., and after removal

it is washed in alcohol. It is now 'cleared' by immersion for a few minutes in oil of cloves and mounted in balsam.

The total number of cases studied by Petrone was 270, of which 150 were cholera, 70 cholerine and 50 choleraic diarrhœa.

In the fecal matter of all the cholera cases and in most of the others he found; 1. the 'comma' of cholerigenic bacillus of Koch; 2. spiral or screw shaped spirilli; 3. rods, straight and curved; 4. S shaped spirilli of apparently the same structure as the rods; and 5 cocci, small and round. Besides these there were occasionally seen large shiny black S or spiral shaped bacilli; and the bacteria of putrefaction were also frequently very numerous.

The screw shaped spirilli, the author thinks, are simply two or more comma bacilli united endways. These spirals were of different lengths, some being formed of as many as 10 joints, others of 5 or 6, etc.

The rods (3) were sometimes curved at one extremity, but in general were perfectly straight. They were about the length of the bacilli of tuberculosis, thin or slender and striated transversely. They took the methyl blue coloring very well and became very prominent, among the other microbes with which they were surrounded, by their deep blue color.

The S shaped spirilli (4) appeared to be identical in character with the rods, having the same thickness and striation. They were apparently three rods united endwise, which had afterward curved into the serpentine form. They were entirely and radically different from the spiral or screw shaped spirilli (2) which, as stated, were evidently formed by a similar uniting of two or more comma bacilli.

Finally, in all the preparations were found the small, round, refractive bodies, blue black in color—*cocci* (5).

In order to study the methods of reproduction of the various forms of micro-organisms enumerated and to discover if possible their genetic phenomena, Petrone observed fresh, unstained material. All were found to be vigorously endowed with life, the movements being lively and characteristic. The comma bacillus was found never to alter its curve, while the 'spirals' seemed to move as though the motion was a combined effort of each of its elements, the similarity of which to the 'comma' bacillus is evident. The rods and spirilli were also actively in motion, the rods while yet in motion frequently becoming spi-

rilli by strange and extraordinary contortions. The transverse striations of the rods show very plainly in the living, uncolored specimens, which seem to be formed of an outer tegument of a whitish substance surrounding a cylinder of a brilliant black color which is transversely striated. The spirilli are similarly constructed and both they and the cocci are very lively in their motions.

Continuous observations, hour after hour, showed that at a certain moment the primitive spirals divide first into two secondary spirals, each of these in turn segmenting into two separate organisms. It was noticed, finally, that spirals formed of two elements fused together, separated at the point of fusion, each part becoming a true comma bacillus. This leads the author to the conclusion that the spiral is the primary bacterium of which the comma bacillus is only an element set free, standing in this respect in the same relation to the mature spiral that a mature proglottis stands to the tænia. It is, therefore, not a true bacterium. The spiral is simply a colony of comma bacilli. Observations also demonstrated that the cocci are the result of the segmentations of the rods—the divisions taking place at the striæ. The cocci, therefore, stand in the same relation to the rods that the comma bacilli do to the spiral.

Injection of choleraic matter into the stomach of living animals invariably had negative results, nor were results attained by feeding choleraic fecal matter to animals.

I have not space to translate what the author says about cultivations but must pass to his experiments on substances which arrest the development of the choleraic micro-organisms.

An aqueous solution of iodine (1—4000) added to a cultivation liquid, in the proportion of one to ten, had no effect, while alcohol in the same proportion arrests development. Chloride of sodium in 3 *per cent.* solution had no effect. Tannic acid (one *per cent.*) has a temporary arresting effect which soon passes away. Sulphate of iron (2 *per cent.*) arrests development but does not kill the bacilli. The same may be said of alum (1—100) camphor (1—300) phenic acid (1—400), oil of peppermint (1—250) cupric sulphate (1—2500) bichloride of mercury (1—100,000) and quinine (1—5000). Tincture of opium (1—100 or 1—150) not only arrests but seems to kill the greater part of the organisms. A temperature of 212° F. kills the organisms if the exposure be sufficiently long, but short exposure does not kill all of

them. The bacilli will live for 24 hours after being dessicated. They are also killed by putrefaction. Examination of the blood of cholera patients shows that it gradually loses its alkalinity as the disease progresses, becoming first neutral and finally acid. The red corpuscles are altered in structure and their number diminished, while the white increase in number. No choleraic microbes were found in the blood.

ARTICLE XL.

Department of the Respiratory Organs.

CONDUCTED BY

J. C. MULHALL, M. D., Physician to the Throat and Lung Department St. Louis Medical College Dispensary.

DYSPNŒA.—Reliable observers abroad state that Euphobia Pilulifera will relieve any dyspnœa not purely mechanical. Its action is referrable to the respiratory centre. The *Pacific Med. & Surg. Journal* gives the following directions. One ounce of the fresh or one-half ounce of the dried plant should be placed in two quarts of water, and this should be simmered down to one quart. Dose, a wineglassfull three times daily. This plant is very common in Australia and is there used by the natives in pulmonary troubles.

DIPHTHERIA. *Deutch. Arch. für. Klin. Med.*—Stumpf states that carbolic acid inhalations, properly administered, are of great value. Success attends thorough application, the best method being to use a five *per cent.* solution in a steam atomizer, five minutes at a time every hour when the patient is not asleep. I have no doubt that a steam spray containing any antiseptic, when properly administered, is of value. The patient should be on the side, the tongue should be gently depressed, and breathing natural. Anything that tortures the throat, anything that causes struggling or exertion, I feel sure, does harm and is the last blow to the struggling heart. "Died of nitrate of silver" should not infrequently replace the term "Diphtheria" in death certificates.

ELECTRICITY IN CARDIAC AND RESPIRATORY FAILURE.—Dr. Griswold read a paper with this title before the N. Y. Academy of Medicine with the following conclusions: 1. Electricity cannot be applied clinically in such a way as to stimulate the heart, literally speaking. 2. The application of one pole of the battery to the neck and the other over the precordial region, when the pneumogastric is not paralyzed, may result in death. 3. The stimulation of the phrenic, stimulates the vagus, and vice versa, from proximity of the two nerves. 4. The liability to depress the heart from stimulation of the vagus in connection with the phrenic, is not great in aconite, ether or opium poisoning, on account of the paralysis of the vagus produced by these drugs. 5. In heart failure from chloroform and injection of morphia into a vein, the application of electricity to the neck is *strongly* contra-indicated. 5. Under no circumstances should a current strong enough to cause muscular contractions be applied suddenly to the neck.

These conclusions were derived from clinical practice and experiments on dogs, and such members of the Academy as Fordyce Barker, Jacobi, Rockwell and Amidon concurred fully. Knowledge on this subject and more of it is needed. In chloroform syncope it is certainly not uncommon to apply a strong current, the poles at neck and precordium. This paper proves such a proceeding to be very dangerous.

OBSERVATIONS ON NIGHT COUGH, ESPECIALLY IN CHILDREN. Dr. A. W. MacCoy *Med. News.* Feb. 28.—The author makes an important and true clinical observation, that is very little known, namely, that this night cough is nearly always due, in children, to pharyngeal and laryngeal irritation caused by mucus coming from a nasal catarrh. His paper does not cover the whole ground. I have seen night terrors, tossing about, grinding of the teeth, mimic spasm of the glottis, hoarseness, tumultuous and irregular respiration from the same cause. As Dr. MacCoy explains, the recumbent attitude favors the backward flow of mucous from the posterior nares, which during the day is swallowed or expectorated or blown out, but during unconsciousness accumulates and flows into or against the larynx producing cough.

INTUBATION OF THE LARYNX. *N. Y. Med. Record.*—Dr. Brush reports that it is the practice of Dr. O'Dwyer of the N. Y

Foundling Hospital, in order to relieve the laryngeal dyspnœ of croup, to introduce, *per orem*, a tube into the larynx and trachea, which is guided into place by a specially constructed forceps. Tubage of the larynx, to replace tracheotomy in croup, is an old proceeding introduced by Bouchut, but long since abandoned. The principle is an attractive one, and Dr. O'Dwyer's experience proves its soundness—the fault having been in the method. Bouchuts tubes did not pass through the larynx into the trachea, and a string was attached to the tube (for fear of its slipping into the trachea) which, hanging out of the mouth, was a constant source of irritation to the parts. Dr. O'Dwyer uses a tube which passes for an inch into the trachea, and is provided with flanges which rest on the superior borders of the larynx. Having introduced the tube with his forceps, he disengages the latter and boldly leaves the tube *in situ* without string attachment. The forceps are again used to extract the tube. Dr. Brush has thus seen Dr. O'Dwyer frequently relieve threatened suffocation in a moment, the child being thus once relieved eagerly invites the reintroduction of the tube, when choking. The tube may be left in for hours, and is not coughed out. He wishes to perfect his instruments and record of cases before communicating with the general medical public, which, I judge, will await with interest the invention of a means that will replace tracheotomy in croup—even though the means be applicable to but a certain proportion of cases.

EXTIRPATION OF THE THYROID. Colzi *Centralatt für Chirurgie* Feb. 7.—The following are the results of his experiments. Puppies were unaffected. Dogs from which both lobes were extirpated, died in from three to eight days. In the first 24 hours attacks of dyspnœa occurred, which disappeared for the time. Then they had fibrillary muscular contractions in different muscle groups, as well as occasional tonic or clonic spasms, and stiffness of the limbs. There were psychical disturbances, the eyes bore a frightened look, loss of appetite and gradual weakness followed. The dog lay on the floor lifeless, disturbed occasionally by shiverings. In some there was dysphagia. Temperature was normal. They died with symptoms of general paralysis. In another group of dogs, half only of each lobe was excised and in these no changes occurred.

If the whole of one lobe and half the other were excised, the

fibrillary contractions, stiffness of limbs, mental and physical hebetude occurred, but were delayed several days and the animals finally recovered. Ligature of the glands and arteries were without result. When both lobes were excised and the lethal symptoms had reached their height, transfusion of blood from another dog so revived the sinking animal that he was no worse than on the day following excision. On the second or third day after transfusion lethal symptoms again occurred, which were again deferred by transfusion.

From these experiments, Calzi is led to believe that the function of the thyroid gland is to collect from the blood some waste product, capable, when the gland is removed, of accumulating in sufficient quantity to destroy the subject, just as the uræmia which follows extirpation of the kidneys, does. To fulfill this function ¼ of the gland suffices. Surgically, exstirpation of one lobe is to be performed, where indicated. The excision of both is rarely indicated, and only when partial excision does not relieve dyspnœa, only those parts should be excised which are directly concerned in the tracheal pressure. It is better to first tie the arteries, and then excise at leisure. The excision could even be limited to the thickened nodules.

MIGRATION OF EMPYEMA INTO THE LUMBAR REGION. Y. Delotte, *Thèse de Paris.*—The author gives in his paper the anatomical routes of such burrowing. The most usual site of pointing being on a level with the last false rib behind, a rarer form being where the accumulation bags lower down still. This comparatively rare condition is usually left sided, and may occupy months or years in forcing its way from the pleural cavity. The conditions may be confounded with cold abscesses, perinephritic phlegmons, with certain tumors of the liver, or with aneurism of the abdominal aorta when the swelling pulsates. The most important differential sign is that the collection may be pressed out of the region and its presence then demonstrated in the pleura. An opening should be made in the pleura, and one below. The prognosis for the lung is good, since the migration of the pus out of the cavity allows the lung to expand.

SMOKING AND CANCER.—The *British Medical Journal* very properly reproves the anti-tobaccoists for making capital out of the newspaper reports which attribute General Grant's condi-

tion to smoking. Dr. C. Partsch in the Habilitationschrift, Breslau, 1884, reports 98 cases of cancer of the lip, and states that amongst the irritants to which might have been attributed the disease, or awaked it from a dormant state, tobacco had little place. Ten of the cases were in women. The fact that cancer often originates in moles and warts, suggests to one that in cancers of the epithelial type, there exists before malignancy a colony of bastard cells, which in some only await irritation to become malignant, in others need no stimulus. In smoking the brunt of irritation is borne by the anterior lateral surface of the tongue. In general Grant's case the cancer is situated at the base of the tongue and palatine arch. If the seeds of disease were already there any stimulating article of food would cause them to sprout as well as tobacco. If the latter alone could change normal cells into malignant ones, the cancer should have been situated in the anterior lateral portion of the tongue.

One year ago I excised an epithelioma from the left side of the lower lip (where the pipe is held) of a man who had never used tobacco in any shape, whose adjacent teeth were perfect, who did not shave, and had had no injury there. Last December, assisted by Dr. H. H. Mudd, I removed, through submaxillary incision, nearly the entire tongue and the right anterior palatine fold from a gentleman whose case resembles much the published reports of the case of General Grant. Up to date this patient is perfectly well. He had never used tobacco, but dated his trouble from a wound caused by a fish bone—in fact, he thought, when he applied to me, that I would find a foreign body in the base of the tongue.

ŒDEMA OF THORACIC PARIETES AND PLEURAL EFFUSION. *Paris Medical.*—M. Barbe has written a thesis to prove that there are exceptions to the rule that œdema of the thoracic walls means purulent effusions in the contiguous cavity He relates several cases from the service of M. Dienlafog which show that a very large serous effusion may cause the same sign. Exploratory puncture is the only absolute test.

SEDATIVE EXPECTORANT.—Dr. H. C. Wood, in the *Therapeutic Gazette*, says that he has had most success with the following:

℞ Potass. Citrat.....ʒj.
Suc. Limonis.....ʒij.
Syr. Ipecac.....ʒss.
Syr. Simp.....ad ʒvj.
M. Sig. Tablespoonful four to six times daily.

ARTICLE XLI.

Proceedings of Medical Societies.

ST. LOUIS MEDICAL SOCIETY.

Taken by the JOURNAL'S Stenographic Reporter.

Prepared by the Publication Committee of the Society.

Paralysis from Hæmorrhage in the Spinal Canal—Death due to Decupitus—Pathological Specimen.

SATURDAY, Feb. 7th, 1885.

DR. ATWOOD, President, in the chair.

DR. LUTZ.—This is the spinal cord taken from a man 47 years old, who, by a fall, became paralyzed in both the upper and lower extremities. I saw the patient 18 days after the fall. I do not know the early history. There was complete paralysis of motion in both the arms and legs, but there was no paralysis of sensation. The bladder and bowels were under perfect control, there was a swelling about the size of a silver dollar in the region of the sacrum. In making a very thorough examination of the spinal column I found no appearance of injury, neither was there any deviation from the normal conformation of the spinal column, nor were there evidences of injury to the back except decubitus; and the only symptom aside from the paralysis of which the patient complained was sleeplessness. Temperature and pulse normal. It is quite customary to diagnose concussion of the spine after injury, whenever we are at a loss to account satisfactorily for the paralysis, by either a fracture of the spinal column or dislocation. I am free to say I did not have sufficient evidence before me to make a diagnosis of concussion of the spine, which we all know is a question that is a very much mooted one. Extensive works have been written on concussion of the spine, especially as associated with railroad injuries. An entire volume has been devoted to it by Mr. Erichsen, and an additional volume by Mr. Gage, a railroad surgeon of England, who has taken it upon himself to contradict many of the statements of Mr. Erichsen; and, on the other hand, they hold that such a condition as concussion of the spine rarely if ever occurs. The treatment in

this case consisted in, the first place, in an endeavor to prevent the extension of the decubitus, for which I put the patient into quite an elaborate arrangement whereby he was elevated, a kind of an invalid bed, and then I administered iodide of potassium in addition to tonics, such as quinine and iron. After the lapse of about three weeks I administered strychnia and the tincture of nux vomica. In spite of every effort, as far as medicinal treatment was concerned, the patient died. The autopsy showed no kind of lesion or injury of the viscera. In the spinal column itself I found neither dislocation nor any evidence of a fracture of any portion of the spinal column. In the spinal cord itself there was no hæmorrhage, but between the spinal cord and the bony walls there were two distinct hæmorrhages. The first extended from the last cervical to the 4th dorsal vertebra, and the second from the last dorsal vertebra to the *cauda equina*; both clots were situated posteriorly. The inferior hæmorrhage was more extensive than the upper one and it pressed so much upon the cord itself as to produce a very appreciable softening of the entire cord, besides flatening it antero-posteriorly. When I began to administer strychnia, partial motion re-appeared in the lower extremities; the upper extremities he was never able to move. The patient died, in my opinion, of decubitus. The difficulty is in making a diagnosis in a case of this kind. If those are to be believed who have written on these subjects it is very often found that although the spinal column presents no kind of lesion, or any evidences of dislocation or fracture of any portion of the vertebral column, yet the pressure upon the cord in some portions has been so great as to produce paralysis, and the injury has been called concussion of the spine. In cases of this kind the possibilities of recovery are by no means small. Many cases of hæmorrhagic effusions are diagnosed as concussion of the spine or spinal cord on account of the identity of the symptoms. I believe the profession holds that there is such a condition as concussion of the spine independent of any appreciable lesion either to the spinal column or to the spinal cord. I dare say those cases are exceedingly rare and it requires a man of great diagnostic acumen, which can only be acquired by a large experience in injuries of this kind, to determine. This specimen demonstrates that a diagnosis of concussion of the spine ought to be made with very great care.

DR. DEAN.—I ask Dr. Lutz how in the absence of concussion

in that part of the spine a hæmorrhage could have occurred?

DR. LUTZ.—I do not want to be understood as saying that there was no concussion, I wanted to convey the impression that a diagnosis of concussion of the spine in this case would have been erroneous. We ordinary understand by concussion of the spine, strictly speaking, a condition of the spine in which there is functional disturbance without appreciable anatomical lesion. If a man were thrown out of his carriage and became unconscious at once and died in that condition and a post-mortem revealed no fracture nor laceration nor effusion or other injury about the brain or spinal column, we would be inclined to say it was a case of concussion of the spine; but if that patient gained consciousness, and died subsequently, and we made a post-mortem and found a hæmorrhagic effusion of the dura-mater of the brain, we certainly would not attribute the symptoms of the case to a simple concussion of the spine. Cases of true concussion of the spine pure and simple are of very rare occurrence. During a discussion before the Medico-Legal Society of New York, it was held by some prominent neurologists that there are cases of concussion pure and simple, although they are exceptional. In a majority of these instances, which we call concussion of the spine, the symptoms show that there has been appreciable lesion. It is a subject upon which there exists a great diversity of opinion and confusion among the profession. Mr. Erichsen, in the cases which he reports, shows conclusively that quite a number of pathological conditions of the spine and spinal column are covered by the term, concussion of the spine. There has, of late years, arisen a particular kind of disease which is called the railroad spine; all these are embraced, ordinarily, under the term concussion of the spine.

DR. ED. BORCK pointed out the possibility that the man was suddenly paralyzed and then fell.

DR. LUTZ said that from the accounts of the wittnesses of the accident it was evident that the paralysis was the consequence of the fall.

DR. DEAN.—I rise to criticise the statement that there was no perceptible lesion of the spinal column, and yet Dr. Lutz says there was a lesion of the vessels. It seems to me that there must have been a concussion of the spinal column. I now understand the doctor has excluded that in his remarks.

DR. A. GREEN thought it very strange that there was para-

lysis of motion, with perfect sensation. The portion of the clot posteriorly would be more likely to produce paralysis of sensation than of motion. He mentioned as a possibility that the hæmorrhagic effusion was merely caused by his lying on his side. By hypostasis. The case was rather a strange one. It might be inferred from the symptoms that the paralysis of motion occurred not from the effusion of the blood, but by some injury to the front portion of the body. If decubitus had never taken place he might have regained his motion. Possibly there was only a simple peripheral paralysis of the nerves.

DR. LUTZ.—I would like to ask Dr. Green, if he was called upon as an expert in a case, and made a post-mortem, in which there was an apparent injury to the spinal cord, and found a tangible lesion and a hæmorrhagic effusion, whether he would not be inclined to attribute the condition of the spinal cord and the disturbance of its functions, to the effusion, rather than to an undemonstrable condition called concussion of the spine?

DR. A. GREEN.—I understand the blood was outside of the dura mater. If the hæmorrhagic effusion had been inside of the membranes, I might have thought so; or if it had been between the arachnoid and the pia mater or between the arachnoid and the dura mater; but he says there was not a particle of blood between the pia mater and the arachnoid or the dura mater and the arachnoid and, therefore, I think it is rather a strange case.

DR. OHMANN-DUMESNIL.—Dr. Green's position is untenable. If the paralysis was caused by the position of the person after he fell, the blood would have been found in the lower portion of the back, which would have been owing to the hypostatic condition of the clot, otherwise it would have been more diffused.

DR. A. GREEN.—The blood gravitates to the weakest place, and it is clotted there as it was in this case. The blood was outside of the dura mater and consequently the paralysis must have been caused by the effusion of the blood. Somehow the pressure was rather upon the posterior part of the cord than upon the anterior; but the anterior tract was paralyzed and the posterior was not. The blood was found outside the dura mater and there was none found between the arachnoid and the dura mater or between the arachnoid and the pia mater; consequently, the paralysis was not caused by the effusion of the blood.

DR. LUTZ.—To what would Dr. Green attribute the softening of the lower cord?

DR. A. GREEN.—To the pressure of the blood upon that part afterwards.

SATURDAY Feb. 14th, 1885.

DR. ATWOOD, President, in the chair.

DR. PRINCE of Jacksonville Ill., described an operating room devised by him for obtaining filtered air devoid of micro-organisms. (See this JOURNAL Feb. 1885.)

Staining Micro-Organisms.

DR. BREMER gave a practical demonstration of the rapid methods of staining micro-organisms, the bacillus tuberculosis in particular. He said: a vast field of pathological research has been opened ever since the question arose, whether micro-organisms played a part in disease in the human system. It is principally since Pasteur's investigations that this question has received a great deal of attention at the hands of the profession and by the crowning works of Koch which are fresh in the memory of everybody; there is a firm basis now for the pathological bearing of micro-organic germs in disease. I was prompted to undertake this demonstration by a conversation that I had with several gentlemen who requested me to show how the bacilli are stained, and besides as I am personally convinced that at the present day of our science every physician ought to have means of diagnosis within his reach, especially so far as the bacillus tuberculosis is concerned. We know that there are some cases of phthisis, where the physical symptoms are almost entirely wanting in the earlier stages, and here we may very quickly, by an examination of the sputa, arrive at a correct diagnosis and take such steps as are necessary to antagonize the disease in its incipency. Even at the present day it is quite a current opinion, not only on the part of the lay public but also of the profession, to imagine that the bacteria belong to the animal kingdom. This is a pardonable mistake; for not many years back they used to be so regarded by the highest authorities on the subject as animalculæ. To-day we know that they represent the lowest types of plants, propagating by fission, hence called schizomycetes (from the Greek word schizein—to split) that they differ from the higher plants by their want of chlorophyl and by their inability to assimilate inorganic material as the higher classes of plants do. They feed and live upon organized material, upon

the hydro-carbons and nitrogenous compounds. So far as their action is concerned upon the body with which they are brought in contact they may be divided into saprogenous, zymogenous and pathogenic bacteria. The saprogenous, or the septic class, are those that produce by their presence the decomposition in dead organized material: they give rise to the various gases that produce the stench in the cadaver. The dead body may undergo decomposition without stench, but to putrefy with stench the micro-organisms must always be present; without them there is no stench. They play a very important part also in the life of plants; they destroy the dead vegetal matter and thereby give the growing plants an opportunity to nourish themselves. They are very old in the history of the world, they have been found even in those strata of the earth which were formed at a period when the anthracite coal was elaborated. By making sections and grinding them and putting them under the microscope these bacteria have been seen. The next class is the zymogenic, comprising those organisms that produce by their presence certain fermentative processes, for instance, the micrococcus aceticus and butyricus which produce acetic and butyric acids respectively. The third class, and that which concerns us most, is the pathogenetic. There are, in my opinion, only two diseases in which the presence of the pathogenetic micro-organism is established without peradventure and those are, anthrax and tuberculosis. In these two diseases there can be no reasonable doubt that they depend upon the presence of specific bacteria, because all the conditions prerequisite for the establishmeut of the *materies morbi* have been fulfilled, and that is, in the first place, the invariable presence of the micro-organisms of the disease, in the second place the production at will of the disease by the inoculation of the bacteria in a state of pure culture, third the invariable presence of the particular bacteria in the animal so infected and, fourthly, the obtaining the pathogenic organisms from it in a state of pure culture. If all these requirements are fulfilled then we have an unbroken chain of logical evidence, such is the fact in anthrax as well as tuberculosis. In regard to other infectious diseases serious objections might be raised on the part of the opponents of the germ theory, because the crucial test of experiments has not been furnished. The majority of human diseases are peculiar to mankind only and inoculation in animals fails. I am very prone to believe that the cholera bacillus is really the

cause of cholera but there is not this overwhelming evidence in favor of pathogenic nature of the bacillus as in anthrax and tuberculosis. Now, as to the process of staining the bacillus tuberculosis. Take a small quantity, about the size of a pin's head of the suspected sputum; spread it as a thin film, (the thinner the better) on the cover glass, let it dry, then pass it through the flame of the spirit lamp just sufficiently to render the albumen insoluble. The film then becomes transparent. Great care must be taken in doing this as otherwise the specimen will be overheated, the bacilli charred and when stained will present one chaotic mass of colored substances, the contours of cells and bacilli being lost. Next float the cover glass in the staining solution, which is made by dissolving a basic aniline dye (gentian—violet or fuchsine) in water containing about 2 *per cent.* of aniline oil and which has been filtered on a moist filter to prevent the oil from passing through. The staining fluid thus made is allowed to stand three or four hours, during which time it may be occasionally shaken, Some of the liquid is now filtered off and is then ready for use. This is a fuchsine solution obtained in the manner described. The next operation is to heat the fuchsine solution, on which the cover glass is floating to 60° C., taking care that it does not boil. The manner of testing is by applying to the hand; it ought to heated until the touch of it can hardly be borne. The specimen is now diffusely colored and on placing it under the microscope a homongenous red mass would be visible. If an acid, say muriatic, one in three, is poured over the specimen previously passed through water, it is immediately decolorized with the exception of the bacilli of tuberculosis. In order to make the bacilli appear, the cover glass has to be washed in water and then to be decolorized by means of nitric or muriatic acid, one part to three. Every thing is immediately bleached, the red color disappears, a roseate hue remaining. The whole film of sputum including cells and bacteria of various kinds has lost the red color, except the bacilli tuberculosis, if present; but if the acid be allowed to remain too long, even these will lose their color. The next step is to color the film by placing the cover glass in a solution of malachite green (about two or three *per cent.*), which will also stain all the accidental, non-pathogenic bacteria. Next take off the superfluous water, dry the specimen and imbed it in Canada balsam. The theory of this method, as advanced by Ehrlich, the inventor of the procedure, is that the

bacillus tuberculosis is surrounded by a membrane which allows the color to penetrate and not the acid. The opinion of the greater majority of observers, however, seems to be that the bacillus of tubercle is difficult to stain and just as difficult to decolorize; prolonged sojourn even of the intensely stained bacillus in acid or absolute alcohol will finally produce fading. To stain other bacteria than the bacillus tuberculosis, Gram's method seems to me to answer best. Take the substance to be examined, proceed in the same manner with the sputum, up to the point when the superfluous amount of color is to be removed, substituting, however, the gentian-violet, for the fuchsine. Leave the cover glass floating on the gentian violet solution for from three to ten minutes, then wash and place it in water in a small quantity of the following solution:

℞ Iodini.....1.0 (15 grains)
Potassii iodidi,.....3.0 (45 grains)
Aquæ destillatæ,.....300.0 (10 oz.)
M.

All the organisms, except the tubercle bacilli, will be colored a purplish blue or black. Washing the preparation with absolute alcohol will remove the superfluous color; then dry and imbed. This process like the other one given is very rapid and easy.

DR. DEAN pointed out the difficulty of differenteating the pathogenic bacteria, the one from the other; that in specimens obtained by him from experienced bacteriologists he failed several times to discover the morphological characteristics described by authorities which was owing to defective methods of showing.

SATURDAY, Febuary 21st, 1885.

DR. ATWOOD, President, in the chair.

Curdled Milk lodged in the Pylorus.

DR. OHMANN-DUMESNIL.—A lady called at my office complaining of some acidity of the stomach and a little nausea, for which I prescribed antacids. The nausea, however, persisted and vomiting increased. She is a married lady and suggested that probably she was pregnant, as the vomiting which appeared was similar to that in a previous pregnancy and I prescribed accordingly, but the vomiting still persisted, she vomited everything, even water, and this continued till last Saturday evening when she suddenly ejected a white body, about four inches in length and perhaps an

inch in diameter from her mouth. She was of quite a nervous disposition and supposed that she had thrown up a snake. Her husband was also afraid of it and picked it up with a shovel. This lady lived quite a long distance from me and I told her in case of any emergency to send for a neighboring physician with whom I was acquainted. She sent for him and he secured the specimen, which, upon examination, proved to be a mass of curdled milk, which had probably lodged in the pylorus and upper part of the duodenum giving rise to reflex vomiting.

DR. ATWOOD.—I had a precisely similar experience with a man afflicted with acute articular rheumatism. He vomited for two weeks. At the end of that time he threw up a piece of casein which I recognized at once as such, and very near the color and appearance of a boar's tusk. After that the vomiting ceased entirely.

DR. POLLAK.—How did it happen to assume that shape?

DR. ATWOOD.—I think it was owing to the position in which it was lying. He referred the trouble to his throat.

DR. A. GREEN thought that it was a fermentative process which had set up in the stomach producing vomiting and that an anti-ferment would have been indicated in the treatment of the case.

DR. OHMANN-DUMESNIL.—Of course what ought to have been done is evident now. The lady didn't complain of pain and the acidity seemed to have been controlled by an antacid. It was supposed she was pregnant. There is no doubt that the acidity caused the curdling of the milk. I do not say that the entire lump was situated in the pylorus from the beginning. No doubt if it had been there would have been pain and more or less inflammation, but the lump may have found lodgment in the pyloric valve or about that locality and then caused further curdling of milk which she took afterwards, and in that manner produce continued accretion.

DR. BREMER.—It seems to me, judging *post factum*, that the proper plan would have been to administer to her an emetic, rather than the anti-fervent of Dr. Green.

DR. POLLAK.—Would you give her an emetic if she supposed herself pregnant?

Use of Emetics.

DR. BREMER.—Of course not; it was entirely proper to treat the patient in a palliative way. By the way, this case reminds

me of a sin of omission that is quite prevalent now in our profession, and that is the modern neglect of the time hallowed emetics. Except to children emetics are seldem administered as compared to former times. But I think that a great many obscure diseases of the stomach might be relieved and also certain cases of vomiting by the judicious use of emetics, and in order to prove this position I relate the following instance which occurred about four or five months ago; I was called in consultation to see a case of a lady who was supposed to be afflicted with hysterical epilepsy; there was periodical pain in the right hypochondrium. This pain was at times so violent that the diagnosis of biliary calculus had been made. It was periodical coming on at a certain time. There were irregular contractions of the abdominal muscles on the right side and the navel during the attacks presented a funnel-shaped appearance. Sometimes convulsions, semilateral, as well as general, would set in. No loss of consciousness. At the time when I saw her, large doses of quinine had been given to her without any benefit whatsoever. She had also been treated for catarrh of the stomach by muriatic acid, strychnine and other remedies, but all to no avail. On examination everything seemed in a normal condition, the liver was in proper shape, there was no swelling, no pain, no pressure, and the only thing that could be perceived on pressing in the region of the duodenum was a rumbling noise simular to the purring sound produced by pressure on the cœcal region in the first stages of typhoid fever. The trouble had lasted with short intermissions for about three years, and in order to relieve the patient she had been operated upon two months previously for a tumor of the broad ligament on the right side, the tumor being considered as a possible cause of all the symptoms. This operation set up peritonitis which lasted for about six weeks, during all that time her attacks ceased completely only to make their reappearance on recovery from the inflammatory process. I took it to be a case of visceral neurosis, in the absence of a better name, a neurosis, perhaps, of the solar plexus of obscure origin and nature, the treatment consisted chiefly in the administration of the bromides and opiates. This relieved her but did not stop it entirely. The patient became demoralized; she had heard of the success of a tapeworm doctor and she thought that this gnawing in her bowels might be due to the presence of a tapeworm. In order to humor the whim of the patient and to disabused her of a belief which seemed to be deeply rooted, a

dose of pelleterine was prescribed; she soon commenced to purge and vomit. The remedy acted violently on her, producing intense catarrh of the stomach and bowels for several days. No tapeworm was expelled, but she was well from that on and has remained so up to to-day, eight months after her last attack. In similar cases I shall try a simple emetic, instead of the tape-worm remedy and hope to achieve the same result with it.

DR. DORSETT.—I ask the doctor how he accounts for the pain coming on at a certain time of the day?

DR. BREMER.—There was an hysterical element in this case and hysteria is a periodic disease.

DR. DORSETT.—The reason I asked the question is, that I know a patient who is similarly affected, except that she has had this hysterical condition for the last 12 years dating back to the time when she was confined. She has been treated by a great many physicians, and finally drifted into the City Dispensary. A peculiarity about this case is, that just when the clock strikes 4 in the afternoon she has this intense pain of the abdomen, more general than in Dr. Bremer's case, and she will fall down on the floor and remain in a semi-comatose condition for probably an hour and then get up. Sometimes she will walk out on the porch or into the hallway and speak to persons, come back and within an hour afterwards have no recollection of it.

DR. HURT.—I should suppose, Mr. President, that the same causes in cases of this kind which determine the periodicity of hysteria would be sufficient to determine the pain. Hysterical phenomena sometimes develop themselves almost exclusively in the form of pain, and on other occasions in the form of very violent convulsive movements. The case reported by Dr. Bremer reminds me of one that came under my observation some years ago. I was summoned to see a young woman in a very violent state of convulsions. The tendo Achillis would contract with such force as to turn the toes back almost so that if she was standing up she would have to turn her weight on the upper surface of the foot. The arms and hands were similarly convulsed. I took it to be a case of hysteria and used the usual remedies but without any effect. Finally I administered an emetic of ipecac; she did not throw up anything scarcely from her stomach but foam and not a great deal of that, but it appeared to me that the act of vomiting acted like a specific in the case and she had no more convulsions.

DR. A. GREEN.—I will not deny the fact that in some cases of spontaneous vomiting an emetic will do a great deal of good, while at the same time we must not forget that sometimes an emetic will do a good deal of harm. In such cases as Dr. Bremer has related I should think it was rather the effect of the vomiting which did the benefit, because in those cases in which there is no disease, the trouble consists merely in imagination, and anything which will prove disagreeble to the patient might at once remove the whole thing. But in pregnancy it would be dangerous to administer an emetic. The doctor then related a case of a pregnant woman being suddenly taken with convulsions and vomiting. Assuming that there was a fermentative process going on in the stomach, he gave her a small dose of morphine and subnitrate of bismuth which stopped the convulsions and the vomiting and probably prevented abortion.

Iritis cured by an attack of Cholera Morbus.

DR. WILLIAMS.—The case reported by Dr. Bremer reminds me of a little experience I had some years ago. An old Irish woman for some cause got an acute attack of simple, non-specific iritis; which persisted for some days and was extremely painful and very difficult to control so that the patient could not get any rest at night. I treated her in the usual way without much relief except when I give her morphine in pretty large doses. Suddenly she got a very violent attack of cholera morbus, probably from eating an overipe California pear. When this attack was over, her iritis had disappeared entirely and she never had the trouble afterwards. I presume that the effects upon the iris was the result of the depletion of the watery constituents of the blood of the whole body. I don't know whether if I had given her a purgative it would have had the same effect but I imagine not, because in order to have produced the effect which the cholera morbus did, it would have been necessary to give her a very violent purgative.

Cold Extremeties due to a Vaso-motor Neurosis.

DR. LOVE.—I saw to-day, a women 55 years old, in the higher walks of life. She called at my office about a month ago, complaining of cold feet. I thought of malaria and bad nutrition and prescribed accordingly. To-day I saw the patient at her home. I examined her more thoroughly and got a complete history of the case. It seems that she has been an extraordinarily healthy

woman all her life. She passed her second climacterion nine years ago, at the age of 46. Two years ago her present trouble began, caused, as she thought, by sitting out on the porch late in the evening during summer. She suffered first with chilliness, cold feet and limbs; she felt like seeking the sun and avoiding the shade. She did not ride in the street-car because the draft was objectionable to her. At night she suffered with this feeling of chill, warmth by bottles did not seem to relieve her. Last winter her suffering was considerable. She did not seek any medical advice until she consulted me, I found her in a room of the temperature of 83 degrees sitting over the register trying to keep her limbs warm. Her feet were wrapped in three or four thicknesses of flannel, besides in nubeas, shawls etc., and her arms and body were also wrapped in this manner, still she felt cold. I examined her extremities, they felt warm. She stated that her husband had examined the temperature of her feet during sleep and that they felt warm to him. She sweats much and there is a certain rash presenting itself I believe from the flannels and excessive perspiration. The rash is becoming very uncomfortable, producing an immense amount of itching. Her bowels have always been regular, her appetite is good. No malaria, urine normal. I could not examine her heart very well because the covering of flannels was so great that it was almost impossible to get to it. Her heart-beat, however, was quite slow. In addition to the conditions I have mentioned, there was one of the fingers with an apparent gangrene, dry death of the nail, commencing back at the root and progressing toward the distal end. The matrix is thickened and dry around the circumference and there is no tenderness. I went into a thorough investigation of the case and told them very frankly I didn't know what was the matter. So far as I could discover there was no history to suggest an atheromatous degeneration. I am inclined to think that it is a neurosis depending possibly upon some vaso-motor disturbance.

DR. BAEMER.—Coincided with the opinion of Dr. Love, taking the case related as a vaso-motor neurosis complicated and obscured by the presence of paræsthesia, the sensation of cold being only subjective on the part of the patient. The excessive sweating, is looked upon as a disease of the vaso-motor system of the sympathetic, the gangrene of the finger is due to vaso-motor, or perhaps trophic disturbance. If there really had been

objective coldness associated with a sensation of cold I would pronounce it a spasm of the vaso-motor constrictors, due, probably, to some disturbance of the vaso-motor centre in the medulla oblongata. I attended some months ago a gentlemen who presented a clear case of vaso-motor neurosis, and the relation of this perhaps will illustrate the trouble, although it doesn't exactly correspond with the case which Dr. Love has related. The case was one of a traveling salesman who had been on the road for a great number of years. He is an excitable man, he complained of constant chilly sensations, especially on the left side of his body (this was in July and August) and his hands and his limbs felt like those of a cadaver; at the same time there was much sweating. He couldn't get relief from anything which he had tried. All topical applications and irritants had failed to give relief. He was hypochondriac and experienced a loth of life. I made a diagnosis of spasm of the vaso-constrictor muscles and following the advice of Dr. Moriz Meyer. I galvanized the brachial plexus, placing the anode on the latter and the cathode to the nape of the neck. I was a great skeptic in regard to the efficacy of galvanism in this case, but the warmth returned promptly within a few hours after the application and the trouble disappeared in a month afterwards without any other medication. It may be that in Dr. Love's case galvanism might be of some benefit. Faradization and massage might also be tried as a palliative means.

DR. A. GREEN thought the chilly sensation in the patient might be the result of the great amount of perspiration brought about by wrapping herself up in too much flannel and believed that the removal of the latter might bring about an amelioration.

DR. LOVE insisted that the case was one of a vaso-motor neurosis, that there was a real and no imaginary disease and that the use of the flannel was certainly not the cause of the abnormal cold sensations. He agreed with Dr. Bremer on the plan of treatment. He was a believer in the efficacy of massage, and thought animal magnetism and animal electricity transmitted from the "masseur" to the patient had something to do with the good results obtained.

DR. BREMER.—I do not believe that animal magnetism has any thing to do with the success attending massage in affections of the nervous system.

Vaso-Motor Paralysis.

DR. ATWOOD.—Recently I had a case of vaso-motor paralysis occurring in a traveling man. He had taken some cathartic pills which had not acted, he wanted me to give him something to move his bowels. I examined the abdomen carefully and found no tumor, nor was there any pain. He had not had an action of the bowels for three or four days; he had no appetite, he did not express himself as feeling sick, he simply desired his bowels to be moved. Upon examining him I discovered that there was complete paralysis of the capillary circulation; the surface of the body presented a blue appearance and he was almost pulseless at the wrist and at the extremities, which were icy cold; his body was abnormally cold. Animal heat was maintained with bottles of hot water and he got peptonized milk with whisky. I gave him extract of digitalis and whisky, in very small doses, with hypodermatic injection of whisky. Under the influence of this treatment after the lapse of seven or eight hours there was a recurrence of warmth and his pulse became very near normal at the wrist. I failed to state that there was no pulse perception in the femoral or radial arteries. Upon examination of the heart I detected the feeblest sound imaginable. Partial re-action was obtained but it did not last more than 24 hours when the symptoms recurred with greater gravity than before and he died of what I think was paralysis of the vaso-motor system. I am sorry I did not obtain a post-mortem.

DR. LOVE.—Was the temperature normal?

DR. ATWOOD.—The temperature was normal, at one time it was a degree above the normal. It was indeed a very remarkable case.

Embolus in the Subclavian.

DR. DORSETT.—While you were relating that case I was reminded of one that occurred in a girl about 18 years of age who was suffering with diphtheria. There were three children in the family, one of whom died after tracheotomy. The elder was 18 years of age and did very well until the 21st day. When I called I was told by her mother that she was suffering with extreme pain of the left shoulder right over the deltoid, and upon examining I found no discoloration, but a tender spot. I examined for the radial pulse and found none; I found no brachial pulse, no pulse in the temporal artery. I applied artificial warmth to the body. This condition lasted 24 hours when it entirely dis-

appeared. I was at a loss how to account for this stoppage of the pulse but came to the conclusion that there was an embolus somewhere perhaps in the subclavian. She is getting along nicely.

SATURDAY, Feb. 28th, 1885.

DR. ATWOOD, President, in the Chair.

Specimen of Sarcoma of Viscera.

DR. HULBERT.—I have some specimens from a patient who died at the Female Hospital. The woman was admitted about three weeks ago suffering more from alcoholism. She had to be carried upstairs, was exceedingly nervous and was afraid that she was going to die, although not complaining of well-defined pain at the time. She had no fever; there was a rapid pulse and great dyspnœa. There was also a slight amount of ascites and œdema of the lower limbs, and of the abdominal wall up to about the umbilicus. She acknowledged that she had been an excessive drinker, stating that for months she would not know what a bed was, would not lie down but continue on a constant debauch. She has been at the hospital once or twice before with attacks of alcoholism. She was taken three days ago at about 3 o'clock in the morning with great pain in the abdomen and went into a state of collapse and died at about five. I have here the spleen and the mesenteric glands, a large part of the small intestines, both kidneys, and a small part of the descending colon. The left kidney is imbedded in an immense growth which is of the same character as that of the indurated mesenteric glands. The capsules of the glands seemed to be very weak and you could squeeze the contents out of the centre, which was of a grumous character, rather white gray in color and very soft. It was not so soft at the periphery. The liver was enlarged and fatty degeneration present, as also the heart, the apex being a pyramid of fat. There was no muscular tissue in the heart and the fat extended between its muscular fibres. The patient also gave a history of the general lesions of syphilis, but not of a local lesion chancre. My own opinion of the case was that it was syphilis and alcoholism combined. The immediate cause of death was perforation of the bowel which is visible here. There is an immense sacculation, and there are two or three gangrenous spots. This sacculation was filled with scybala. The cæcal

value is very large and very fatty. This part of the descending colon is almost occluded, you cannot get your finger in it without distending the gut seriously. There was an immense amount of fat, in fact the woman was a pathological monstrosity almost in every part of her body.

DR. BREMER.—I consider this to be a sarcoma, and a sarcoma of a very malignant type. In all probability a small round-cell sarcoma, judging from the general dissemination of the tumors throughout the intestine. It is not, as was suggested, syphilis, because in syphilitic inflammation there is a tendency to the formation of cicatrices. The organs that are attacked by syphilis will, in the latter stages, shrink. This shrinkage is due to the formation of fibrous tissue. Thus in the liver for instance, we have the organ lobulated; the parenchyma is shrunken by the contracting fibrous tissue, and that is true throughout all the organs that are affected by syphilis. Besides we never have such an extensive growth in syphilis as there is here. These are either malignant tumors of the connective tissue series and then they are sarcomata, or they belong to the epithelial series and then they are carcinomata. Now the distinguished feature of carcinoma is the alveolar structure, which can be demonstrated by close examination, and you will not find it here; consequently it must be a sarcoma and, in all probability, one of a very malignant type, that which approaches nearest to the connective tissue or small round-cell sarcoma. Of course, I have not examined it but I think that a microscopical examination will prove that to be the fact. The immediate cause of death probably was caused, as Dr. Hulbert says, by peritonitis due to perforation of the gut. The original tumor in all probability started in the suprarenal capsule.

DR. DEAN.—I should suspect from the location one of two things, either that it is a tumor of the capsula adiposa or a sarcoma of the true capsule of the kidney. But a little examination of this specimen shows that the large amount of fat is entirely outside of the large and small intestines, so that it is probable that the fatty tissue started from the outside. It seems to arise from the capsule of the kidney and not to involve it, although there is infiltration upon the surface. In the case of capsula adiposa a single change takes place which differs from fatty degeneration, in the more fibrous structure of the cells. I incline to the same view that has been expressed here to-night, that it is

a sarcoma arising from the capsule proper of the kidney, at any rate involving it and probably starting from the suprarenal capsules. A few years ago I had a case where we started to remove a tumor on the supposition that it was ovarian but we soon saw that whatever it was it could not be removed. I had the case at the hospital and have photographs of it. The tumor weighed 32 pounds and the woman, after it was removed, only 92 pounds; the body being weighed after death. In that case the suprarenal capsule was in its position near the kidney and the kidney lay just on the upper part of the tumor which extended downwards. I think the cause of death which has been mentioned must be the correct one.

DR. BREMER.—How old was the woman?

DR. HULBERT.—About 35 years of age.

DR. BREMER.—We must also take into consideration the age of the patient in determining the character of the tumor. We know that carcinoma, true cancer, is a tumor which occurs after 40 years of age, usually between 50 and 60, whereas sarcoma in the tumor *par excellence* of youth.

Specimens of Bacilli.

DR. DEAN.—From a source on which I can rely I had several month ago the promise of a slide of cholera bacilli prepared or verified by Koch but I have been unable as yet to get the specimen, although I have had fresh promises that it should be forthcoming. But I have received a slide from a reliable man in Brussels who is recommended by Seitz. I have also brought a specimen of the bacillus of leprosy prepared by Markman of Essen, and I bring also a specimen of bacillus from a consumptive patient at the hospital which I have prepared according to Koch's method, and from which I had better results than by any method that I have tried. I do not bring these specimens to the Society because I suppose the gentlemen will be able to distinguish the difference between them, but I thought it would be interesting if they are willing to take the word of those who have made these things a study. It is well known that any one in visiting a strange land where there is a different race is unable to distinguish between the individuals. I have seen people who would go on a plantation and could not tell one negro from another. They could tell the old from the young or the tall from the short, but those of the same age looked alike, and so it is with these bacteria, but when one becomes sufficiently

familiarized with them he can notice the difference, I presume, quite plainly.

New Instruments.

DR. EDW. BOROK presented Péar's artery forceps together with a modified one of his own in which the jaws are bent at an angle so as to facilitate introduction into deep wounds. He also presented a suture needle devised by himself which dispenses with the use of needle forceps. He used sewing machine needles having the eye near the point, and has a German silver handle attached to the shank. The proper curve is given to each needle and it is tempered again.

ARTICLE XLII.

In Memoriam.

The St. Louis Medical Society; with a deep sense of loss at the death of its senior member and ex-president, records this testimonial to the memory of

JOHN SIDNEY MOORE, M. D.,

who endeared himself, during the forty-five years of his life in our midst, to all who came within the sphere of his influence. A native of North Carolina, he received a liberal literary training, and reading medicine, practiced his profession in the states of Tennessee and Illinois, afterwards graduating under his distinguished preceptors, Joseph Nash McDowell and Daniel Drake at Cincinnati, Ohio. At the invitation of the former, who had removed to this city, he joined him in inaugurating the Medical Department of Kemper College the first medical institution established west of the Mississippi River, and enjoyed the distinguished honor of delivering the first lecture upon medicine to the first class of students convened in the great valley. To his ability, energy and devotion is mainly due the prolonged existence of that institution, which, though experiencing many vicissitudes and changes, still flourishes as the Missouri Medical College. For very many years he was the able Dean of its faculty, conducting its affairs with rare executive ability, while filling re-

spectively the chair of Obstetrics and Diseases of Women, and of Theory and Practice of Medicine. Thoroughly identified with the profession at home, the American Medical Association honored him with national recognition by electing him one of its Vice-Presidents. Studious, energetic and reliable, with always a keen sense of responsibility, he discharged the onerous duties incident to an extensive practice with unfaltering patience. Courageously he faced contagion and notably, during the terrible cholera epidemic of 1849, he was indefatiguable in the performance of professional labors.

His conduct, always squared with the requirements of our National Code of Ethics, was alike honorable to brother practitioners and the community. For irregulars and all who sought recognition through unregonized methods he felt and expressed unbounded contempt. To youthful aspirants for professional position he was a fatherly adviser and assistant.

Professor Moore was an able lecturer, commanding the admiration of his colleagues and the devotion of thousands of students. His object was always to teach and he possessed to a wonderful degree the happy faculty of readily and forcibly imparting knowledge. His style, while not ornate nor marked by oratorical effort, was clear, concise, fluent and vigorous. Method characterized the arrangement of his subjects into which no extraneous matter was allowed to enter. To him pathological investigations, microscopic revelations, scientific dissertations and intricate theories, were valuable only as they conduced to the better understanding of disease and its treatment.

Enjoying the respect and esteem of the profession and the community, it was reserved to intimate friends, but few of whom survive him, to witness the beauty of his home-life. Genial, affectionate and hospitable, his residence was a centre where congregated beauty and intellect to bask in the sunshine of his social virtues and enjoy the society of his affectionate wife, lovely daughters and manly son.

Those who knew him longest loved him best. Noticeably at the last sad rites, there assembled about his bier the associates of his earlier years, grown gray like himself in professional labors, while elderly citizens, mindful of his honorable career, united to pay the last tribute to all that remained of the true friend and noble physician. As we turn from his resting place in Bellefontaine to resume the burthens of an exacting profession, there

remains to us only fond recollections of a brother who, departing, left "no blot on his name."

LE GRAND ATWOOD,
G. F. DUDLEY,
W. M. MCPHEETERS,
J. M. SCOTT,
C. O. CURTMAN,
G. HURT,
} Committee.

PETER V. SCHENCK, M. D.

WHEREAS, The sudden death of Dr. P. V. Schenck has been the occasion of convening his associates of the St. Louis Medical Society for the purpose of public and concerted action, therefore be it

Resolved, That we deplore, in his untimely death, the loss of an esteemed colleague, whose diligent prosecution of his calling and sound acquirements in medical science made him a trusty counselor and commanded our respect, while his many amiable qualities endeared him to us as a genial companion.

Resolved, That his memory will endure with us as an efficient administrator in the several official and public professional positions which he filled with so much credit to himself and advantage to his patient.

Resolved, That we respectfully tender to his family our sincere sympathy in their great bereavement.

Resolved, That these resolutions be entered upon the record and communicated to the press.

CHAS. E. BRIGGS,
R. M. JORDAN,
GEO. F. HULBERT,
L. H. LAIDLEY,
W. B. DORSETT,
} Committee.

The former assistants of the late Dr. P. V. Schenck at the St. Louis Female Hospital and Poor House, now residing in or near the city, assembled for the purpose of expressing their grief at his loss and reverence for his memory, do resolve:

That we one and all bear testimony to his efficiency and constant careful attention to his duties as a public officer. That as Superintendant of the Female Hospital and Medical Superior of the Poor House he deserved and commanded the respect and

thankfulness of his associates, subordinates and of the entire community.

That through his wide reading, vast experience, natural powers and aptitude for his profession, and almost unlimited capacity for work he had attained a degree of skill rarely met with, and that this he made use of as unstintingly and conscientiously for the friendless hospital patient as in the families of the wealthy.

That he possessed to an exceptional degree the faculty of imparting information; that he delighted in contributing to the improvement in their chosen calling of the young men with whom he came in contact, and that we feel personally his debtors, not only for knowledge acquired from his lips, but much more for the benefit of his daily life.

That more than all, in the death of Dr. P. V. Schenck we have each lost a true, generous friend, ever ready by kind or wise word or thoughtful act to do all that lay in his power to guide, direct or assist us. That our consolation in losing him is the appreciation of our privilege in having known him.

That a copy of these resolutions be forwarded to the family of the diseased, and to the ST. LOUIS MEDICAL AND SURGICAL JOURNAL the *St. Louis Courier of Medicine*, and the *Weekly Medical Review* for publication.

For the former assistant physicians by the committee:

M. H. POST,
JOHN G. ROBERT,
H. G. MUDD,
JOSEPH GRINDON.

WILLIAM BRAITHWAITE, M. D.

Mail advices from England announce the death of the well-known English physician and surgeon, William Braithwaite, the founder of *The Retrospect of Medicine*, who died at his home in Leeds on January 31. *The Yorkshire Post* of February 2nd contains the following:

He was the oldest medical practitioner in Leeds, and in his large and varied practice he was esteemed on all hand, both on account of his great knowledge and his sympathetic and kindly disposition. Dr. Braithwaite was born in 1807 and was therefore in his seventy-eighth year. His health for some time past has been such as to cause serious apprehension on the part of his

family and friends, and his death on Saturday was not altogether unexpected. He was brought up by the Rev. Richard Hale, at Harewooe Vicarage, and was apprenticed to the eminent surgeon Mr. Thos Teale, and afterward to his equally eminent son, Mr. Thomas Pridgin Teale, so that he pursued his medical curriculum under exceptionally favorable circumstances. He also studied at St. George's Hospital. The deceased gentleman began practice in Leeds on his own account in 1830, and filled the post of honorary surgeon to the Eye and Ear Infirmary and lectured at the Leeds Medical School on the diseases of women. Though occupied in the management of a large practice, he found time to add materially to the literature of his profession. In 1840 he began a medical work which has since become widely known. Its title is *The Retrospect of Medicine.* It is published half-yearly and has now reached its ninetieth volume. It is republished in America, where it is widely known and as highly valued here. During the last few years his son, Dr. James Braithwaite, who will continue to edit the *Retrospect,* has been co-editor with him for this journal. He married a daughter of Mr. James Beardoe, of Ardwick Green, near Manchester, by whom he is survived. He also leaves three sons.

Book Reviews.

Article XLIII.

Memoria Sull' Estrazione Lineare inferiore della Cateratta con ea Capsula. Pel Dottore Raffaele Castorani. pp. 77. Estratta dal Resoconto della R. Ac. Medico Chirurgica di Napoli.—Tomo 38° Fasc, Gennaio a Marzo 1884. (Napoli. 1884.)

On the Linear Inferior Extraction of Cataract with the Capsule. By Dr. Raffaele Castorani. pp. 77, Reprinted from the Transactions of the Royal Medico Chirurgical Academy of Naples. (Naples. 1884.) From the Author.

This is a very interesting monograph on a subject which cannot but prove interesting to oculists. The author himself is an accomplished oculist, having the honor of the professorship of this branch in the Royal University of Naples. The operation consists first in making a linear incision below and parallel to the cornea prolonging it a little more to the nasal side, then performing iridectomy, removing that part of the iris corresponding to the central third of the first incision. The next thing done is to extract the cataractous lens with its capsule. The various conditions and their effects in more or less modifying the operation are considered, and short clinical histories of 165 cases follow. Of these 144 were men and 21 women. In these the principal complications observed were leucoma, central, 2; general posterior synechia, 95; highly developed arcus senilis, 6; catarrhal conjunctivitis, 2; internal membranous pterigium, 5; disturbed retinal function, 3; serous choroiditis, 6; separation of the retina, 2; irido-choroiditis, 1; adherent leucoma, 1. Among the accidents which occurred during the operation he mentions loss of the vitreous humor, 15; tearing of iris, 3; effusion of blood in the anterior chamber, 5; loss of the crystalline lens in the ocular cavity, 1; incomplete extraction, 1. The grand total of cases operated was 237, of these, 7 where completely unsuccessful; 230 were successfully operated upon and in 8 of the latter a second operation was necessary.

This monograph is well written, interesting and instructive and the addition of illustrations of the various steps in the operation renders the author's views and hints clear and easily appreciated.

A. H. Ohmann-Dumesnil.

MEMORIA SULLA CURA DELL' ECTROPIO INFIAMMATORIO (Escissione della Conjunctiva e Cauterizzazione). Pel Dottore RAFFAELE CASTORANI, pp. 8, Estratto dal Resoconto della R. Ac. Medico-Chirurgica di Napoli. Tomo, 37° Fasc Iuglio a Diciembre 1883. (Napoli. 1884).

ON THE CURE OF INFLAMMATORY ECTROPION. (Excision of the Conjunctiva and Cauterization.) By DR. RAFFAELE CASTORANI, pp. 8. From the Transactions of the Royal Medico Chirurgical Academy of Naples. (Naples. 1884.) From the Author.

The same author as of the preceding is a guarantee that he has treated his subject in a masterly manner. He expresses his preference for a radical method over such as are merely palliative or uncertain in their action. The operative procedure is simple, as the title indicates, and it is scarcely necessary to advert to it here. He had operated on 11 cases at the time he made his report. Of these, 9 were males and 2, females, varying in age from 35 to 55. The number of operations amounted to 14, on the lids of the left eye, 2; on the right lower eyelid, 7; on the left lower lid, 5. Number of cures 14.

Accompanying this report are four lithographs, of very poor execution, showing two cases before and after the operation. If they can be said to represent the results truthfully, they are beautiful and, indeed, as good as could be expected or desired.

A. H. OHMANN-DUMESNIL.

THE MEDICAL RECORD Visiting List for 1885. Price $1.25 & $1.50 [Wm. Wood & Co.

It is all that could be asked.

PYURIA; or, Pus in the Urine, and its Treatment. Comprising the Diagnosis and Treatment of Acute and Chronic Urethritis, Prostatis, Cystitis and Pyelitis, with especial reference to their Local Treatment. By Dr. Robert Ultzmann, Prof. of Genito-urinary Diseases in the Vienna Polyclinic. Translated by Permission by Dr. Walter B. Platt, F. R. C. S. (Eng.) Demonstrator of Surgery in the Univ. of Med., etc. pp. 98. [New York: D. Appleton & Co. 1, 3, & 5 Bond St. 1884.

The Author of this work strongly insists upon the *local* treatment of accessible diseases, local in their origin and course. His brilliant results justify his preference for this mode.

This work is a valuable addition to our literature on the diagnosis and treatment of genito-urinary diseases.

SURGICAL DELUSIONS AND FOLLIES. A review of the Address in Surgery for 1884 of the Med. Soc. of the State of Penn. By John B. Roberts, A. M., M. D., Prof. of Anatomy and Surgery in the Phila. Polyclinic, etc. pp. 55. [Phila: P. Blakiston, Son & Co. 1884.

"Much that is believed and practiced in Surgery is false; its only virtues are its hoary antiquity and its very general acceptance."

The sooner these delusions and follies have been dispelled, the greater will be the efficiency and hopefulness of surgery. This little work treats of many of the "Delusions and Follies" of surgery; yet, much more could be said and it is hoped that the Author will some time enter more minutely into the work so well begun.

A MANUAL OF OBSTETRICS. By Edward L. Patridge, M. D., Prof. of Obstetrics, N. Y. Post-Graduate Medical School, etc. With sixty Illustrations. pp. 295. [Now York: Wm. Wood & Co. 1884.

This is one of Wood's Pocket Manuals, and is designed for students, particularly.

In compiling this little volume, the author has been concise and clear. Nothing has been omitted. It will be a great help to students, as the author has had considerable experience in class teaching and, therefore, has laid particular stress on those points which generally prove stumbling blocks to the student.

MICRO-ORGANISMS and Disease. An Introduction into the study of specific Micro-Organisms. By E. Klein, M. D. F. R. S. with 108 Engravings. pp. 195. Price $1.00. [London: MacMillan & Co. 1884.

Most of the investigations herein contained were carried out for the Medical Department of the Local Government Board during the past ten years, and, with few exceptions, were published in the *Practitioner*. (1884.)

To those who want to get a clearer insight into this field of study, this book will prove invaluable.

THE PHYSICIANS DAILY POCKET RECORD and Visiting List. By S. W. Butler, M. D. Edited by D. G. Brinton, M. D. [*Phila: Med. & Surg. Reporter*. 115 S. 7th St. 1885.

Like all of Dr. Brinton's works, this little book is well arrainged and edited.

CONSUMPTION, its Nature, Causes, Prevention and Cure. By J. M. W. Kitchen, M. D. Assistant Physician to the Chest Class (O. D. Dept.,)etc pp. 223 [New York: G. P. Putnam's Sons, 27 and 29 West 23 D St. 1885.

This treatise is well written and will be of great value to the general practitioner. Giving him a further insight into the nature, causes, prevention and cure of this dread malady.

THE ANALECTIC. A Monthly Periscopic Summary of the Progress of Medical Science. Edited by Walter S. Wells M. D. vol I. 8vo. pp. 582. Price $3.25 [New York: G. P. Putnam's Sons. 1884.

This, the bound volume of the *Analectic*, is the best repertory of medical news yet offered to the profession. The classification and selections are exceptionally good.

THE YEAR-BOOK OF TREATMENT for 1884. A Critical Review for Practitioners of Medicine and Surgery. Compiled by twenty-three prominent Physicians and Surgeons. pp. 316. [Phila : Lea Brothers & Co. 1885.

This year-book or review of the progress of medicine in relation to the Treatment of Disease is well edited and is, indeed, a *multum in parvo*.

TRANSACTIONS OF THE ACADEMY OF MEDICINE in Ireland. Vol. II. Edited by Wm. Thomson, M. A., F. R. C. S. General Secretary, Surgeon to the Richmond Hospital, Dublin. Octavo. pp. 504. [Dublin: Fannin & Co. Grafton St. 1884.

This is a very valuable work, well written and illustrated with numerous lithographic plates. Its pages show that a commendable amount of work has been done by the Society.

THE STORY OF MY LIFE. By J. Marion Sims, M. D., LL. D. Edited by his Son, H. Marion-Sims, M. D. pp. 471. price $1.50 [New York: D. Appleton & Co. 1, 3, & 5 Bond St. 1884.

This book, the history of the life of the greatest clinical surgeon, should be read by, every American Physician.

MEDICAL JOURNAL ADDRESSES. We have received from the Illustrated Medical Journal, Co. of Detroit, Michigan several sets of their *Perforated, Adhesive Medical Journal Labels.* The list includes besides the journals of the United States that are devoted to Medicine, Pharmacy and Hygiene, those of the Provinces of Canada as well. Four complete sets will be mailed post paid for fifty cents on addressing the publishers above named. They are just what every physician needs for addressing his Reprints for journal notice, and Medical Colleges for addressing their Announcements for a similar purpose.

We take pleasure in announcing that Mr. George S. Davis, of Detroit has undertaken to continue the publication of the *Index Medicus* on the same general plan, and with the same regard to typographical accuracy and finish, as heretofore.

On account of the delay required to perfect this arrangement, the first number of the Journal for the current year will comprise the literature of January, February and March, after which it will appear monthly as usual.

At the end of the year, in addition to the usual annual index of names, subscribers will be furnished with an index of subjects to the volume.

We think we may venture to congratulate the Profession on Mr. Davis' public-spirited determination to carry on the enterprise in spite of the fact that thus far it has not been pecuniarily remunerative.

It is requested that all exchanges, and book and pamphlets for notice be sent to *The Index Medicus*, Washington, D. C.

Drs. John S. Billings and Robert Fletcher will continue to edit this invaluable publication.

Books and Pamphlets Received.

Article XLIV.

The year-book of Treatment for 1884. A Critical Review for Practitioners of Medicine and Surgery. Edited by twenty-three prominent physicians. pp. 316. [Phila: Lea Brothers & Co. St. Louis Stat. & Book Co. 1885.

Cocaine and its use in Ophthalmic and General surgery. By H. Knapp, M. D. Reprint *Archive of Ophthalmology*, Dec. 1884 with supplementary contributions by Drs. F. H. Bosworth, R. J. Hall, E. L. Keyes, H. Knapp, and Wm. M. Polk, pp. 87. Price, cloth, 75c [New York: G. P. Putnan's Son St. Louis St. Louis Stat. & Book Co. 1885.

The Analectic. A monthly Periscope summary of the Progress of Medical Science. Edited by W. S. Wells, M. D. vol. 1. 8vo. pp. 582. Price $3.25. [New York: G. P. Putnan's Son, St. Louis: St. Louis Stat. & Book Co. 1884.

A Handbook of Pathological Anatomy and Histology; with an Introductory section on Post-Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By Francis Delafield, M. D., and T. Mitchell Prudden, M. D. 8vo. pp. 575. Price $5.00. [New York: Wm. Wood & Co. 56 & 58 Layfayette Place. St. Louis: St. Louis Book & Stat. Co. 1885.

Micro-Chemistry of Poisons, Including their Physiological Pathological and Legal Relations, with an Appendix on the Detection and Microscopical Discrimination of Blood: Adapted to the use of the Medical Jurist, Physician and General Chemist. By Theodore G. Wormly, M. D., LL. D. With 96 illustrations upon steel, Second Edition, 8vo. pp. 784. Price $7.50 [Phila: J. B. Lippincott Company. 1885.

A manual of Organic Materia Medica. Being a Guide to Materia Medica of the vegetable and animal kingdoms, for the use of Students, Druggists, Pharmacists and Physicians. By John M. Maisch, Ph. D. Second Edition. With two hundred and forty-two illustrations pp. 511. [Phila: Lea Brothers & Co. 1885.

The Principles and Practice of Gynæcology. By Thomas Addis Emmett, M. D., LL. D. Third Edition, Thoroughly Re-

vised. With one hundred and fifty illustrations, 8vo. pp. 876 [Phila : Henry C. Lea's Son & Co. 1884.

Holden's Anatomy. A Manual of Dissection of the Human Body. By Luther Holden. Fifth Edition Edited by John Langton, with over two hundred illustrations. 8vo. pp. 886. Price, cloth $5.00 ; sheep $6.00. [Phila : P. Blakiston, Son & Co. 1885.

Our Bodies; or How we Ought to Live. An elementary Text-book of Physiology and Hygiene for use in common schools, with Special Reference to the effects of Stimulants and Narcotics on the Human System. By Alfred F. Blaisdell, M. D. pp. 285. [Boston : Lee & Sheppard. 1885.

The Physians Daily Pocket-Record. By S. W. Butler, M. D. Edited By D. G. Brinton M. D., [Phila : Office of the *Med. & Surg. Reporter* 115 S. 7th St. 1885.

Modern Medical Therapeutics. A compendium of Recent Formulæ and specific Therapeutical Directions, from the practice of Eminent Contemporary Physicians, American and Foreign. By George H. Napheys, A. M., M. D., etc. Edited by Joseph F. Edwards, M. D., and D. G. Brinton, M. D. 8vo. pp. 629. Price, cloth $4.00; sheep $5.00 [Phila: D. G. Brinton, 115 S. 7th St. 1885.

Report on Diseases of Children. Read before the Illinois State Medical Society at its meeting in Chicago 1884. By J. P. Matthews, M. D. Carlinville, Ill.

Transactions of the American Ophthalmological Society. Twentieth Annual Meeting. Catskill Mountains, 1884. [Boston Published by the Society 1885. Copies of these Transactions can be produced by the Society at 139 Boylston St., Boston.

Report of Proceedings of the Ill. State Board of Health. Feb. 5–7–1885.

Thirty-second Annual Announcement Med. Dept. Univ. of Vt. 1885.

Aphonia Due to Chronic Alcoholism. Paralysis of the Lateral Crico-Arytenoids. By E. C. Morgan, A. B., M. D. Washington, D. C. [Reprint. *Jour. of the Am. Med. Ass.*

Address in Medicine. Delivered before the Med. Soc. of the State of Penn. By W. H. Daly M. D. of Pittsburg; Also, Extensive Burn Involving the Cavity of the Knee-Joint. [*British Med. Jour.* Dec. 13, 1884.

Eleventh Annual Report of the Supt. of the Cincinnati Sanitarium, for the year ending Nov. 1884.

Treatment of the Insane, By Orpheus Everts, M. D., Med. Supt. Cincinnati Sanitarium. Cincinnati, Ohio.

The Hygiene of the Nervous System and Mind. By C. H. Hughes, M. D., St. Louis, Mo. [Reprint *Alienist* and *Neuraligist*. Jan. 1885.

Kidney Alterative and Anti-Lithic. Lithiated Hydrange. [Lambert Pharmacal Co. St. Louis, Mo.

Preparation in Mich. against Cholera.—Statement of the Status of the Public Health work in Michigan. (Reprint *Detroit Lancet* Jan. '85.) By Henry B. Baker, M. D., Sec'y State Board of Health.

Climate and Health in Michigan By Henry B. Baker, M. D. Lansing, Mich.

Diagrams illustrating paper in Relation of Low Water in Wells to Causation of Typhoid Fever, By Henry B. Baker, M. D. also, Epidemic-waves of Diphtheria.

Elements of Practical Medicine By Alfred H. Carter, M. D., M. R. C. P. (London) Third Edition. 8vo. pp. 447. [New York: D. Appleton & Co. 1885.

Consumption its Nature, Causes, Prevention and Cure. By J. M. W. Kitchen, M. D. pp. 223. [New York: G. P. Putnam's Sons, 27 & 29 West 23d St. 1885.

The Relations of Schools to Diphtheria and to Similar Diseases. By Henry B. Baker, M. D., Sec. Mich. State Board of Health. (Reprint Sixth Vol. of the Trans. of the Am. Pub. Health Ass.) [Boston: Franklin Press, Rand Avery & Co. 1881.

The work of Health Officers, and of Local Boards of Health in Michigan, including Duties under Laws Amended and Passed in 1884. Prevention and restriction of Small-Pox; Restriction and Preventien of Scarlet Fever; Restriction and Prevention of Diphtheria; Contagious Diseases. Issued by the Mich. State Board of Health.

Notes and Items.

Article XLV.

Last year but nine cases of small-pox occured in Mass.

19,579 deaths from snake bites occurred in British-India in the year 1882.

The Surgeon-General of Massachusetts wants a Militia Ambulance corps established.

Abner Coburn, ex-governor of Maine, bequeathed $100,000. to the Maine General Hospital.

Dr. Squibb, in *Ephemeris*, says that a good extract of Cannabis Indica should be green in color.

Chiene, in the *Edinburg Med. Jour.* reports a successful ovariotomy in a child three months old.

Dr. E. C. Spitzka has resigned the Chair of Neuro-Anatomy and Physiology at the N. Y. Post-Graduate school,

Dr. Wm. G. Eggleston, *N. Y. Med. Record*, reports the successful use of atropine in three cases of electric shock.

Dr. G. F. Burder, in the *Bristol Medico-Chirurgical Journal*, declares that catarrh is due to a specific organism;—What next?

Rates for Members of the Am. Med. Association to New Orleans will be about 1 c per mile each way. This ought to insure a large attendance.

Apomorphine has been found useful in chronic asthma, one-twelfth grain three times daily; it has also been used with satisfactory effect in cases of rigid os.

A committee of the Med. Soc. of the State of Penn., Dr. James Tyson, Chairman, are making a collective investigation of the Diseases; Acute Pneumonia, Chorea, and Acute Rheumatism.

THE *Druggist's Circular* tell of a railway clerk who died after eating a hearty meal, and whose stomach was found distended with undigested food. If it was railway food we are not surprised, and only wonder that more such cases are not reported

---

STAINS on the teeth. For removing stains from the teeth Dr. A. W. Harlan (*Jour. Am. Med. Ass.*) says: Adjust a rubber dam, dry the teeth, paint three or four times with the compound tincture of Iodine, allowing it to dry; then moisten with stronger ammonia, and wash with peroxide of hydrogen and polish.

Dr. John M. Keating *Md. Med. Jour.*, concludes an article on SPASMODIC TABES DORSALIS as follows:—

In more pronounced cases, when we have decided evidences of "spasmodic tabes dorsalis," and treatment has been of little avail, we might use the bichloride of mercury, in small and frequent doses—$\frac{1}{100}$ of a grain, three times a daily; or if we suspect sclerosis, the chloride of gold and sodium. But I think that the best results are obtained with the nitrate of silver; in it I would place most reliance. Erb is reported as having cured a case with the continued current. Charcot failed with electricity, hydropathy and cauterization.

DOES TOBACCO PRODUCE AMBLYOPIA? DR. FRANKLIN COLEMAN. *Md. Med. Journ.* says:

The observations of Claude Bernard that nicotine at first produces contraction of the arteries, and later on the vessels become distended, agree with the views of Upsensky, who, from physiological researches, concludes that nicotine first stimulates, then paralyses the vaso-motor centres.

From personal experience and the literature at my command, I know of no more constant detrimental effect of the use of tobacco than more or less impairment of vision.

The use of tobacco is so frequently associated with drinking to excess that it is questioned by some whether tobacco alone ever produces defective sight or whether the alcohol is not the chief etiological factor. My own opinion is, tobacco of itself is

not only the frequent source of amblyopia, but when combined with the habitual use of alcohol is the essential agent.

THE CÆSAREAN OPERATION AMONG THE ABORIGINES OF CENTRAL AFRICA.—The "*Edinburgh Medical Journal*" publishes a description of an operation that was witnessed by a traveler in Central Africa. The operator (who was one of the tribe) made a bold incision through the abdominal wall, extending from the umbilicus to the pubes. This partly opened the uterine cavity. The hæmorrhage was arrested by the application of a hot iron, then the wound in the uterus was enlarged and its edges were held open by an assistant while the operator extracted the fœtus and placenta. The wound was closed with rude acupressure pins made of irons, shreds of bark being used for the figure-of-eight sutures. Over the whole was placed a dressing of herbs, which the operator had previously reduced to a pulp by chewing them. Union was perfect on the eleventh day.—*N. Y. Med. Jour.*

LACATE OF QUININE.—Vigier ("*Gaz. hebdom de méd. et de chir.*") recommends this preparation for use in hypodermic injections, because of its solubility and the fact that it forms a neutral solution. He prefers this combination.

℞. Lactate of quinine.....15 grains;
Glycerin.....6 drachms;
Distilled water.....20 "

About seventy-five minims of this solution should be injected three or four times a day.—*N. Y. Med. Jour.*

DR. Fordyce Barker, the family physician of Gen. Grant, is reported to have recently given the following account of his condition: "Gen. Grant's health has improved very much during the past few weeks, and the swelling in his mouth, which a few weeks ago made it difficult for him to talk or eat, has subsided in a great measure. Some eight or ten weeks ago he was suffering from a swelling, accompanied by great pain in the back of the tongue, and I called in Dr. J. H. Douglass for the purpose of applying local treatment. The General's smoking, in which he had been accustomed to indulge all his life to excess, seemed to irritate the tongue, although he was not conscious of its affecting his general system. We therefore advised him to cut down his smoking to the first half of three cigars a day, as we thought it pro-

bable that the it was nicotine which accumulated in the last half of the cigar that produced the irritation. He followed this advice for perhaps a week, and then gave up smoking entirely, apparently without the least disturbance to his nervous system, loss of sleep, or other unpleasant effects whatever. This was remarkable as he had been smoking from twelve to fifteen cigars a day. The improvement in his condition since then is marvelous. Under treatment by muriate of cocaine not only has the pain been greatly diminished, but the capillary congestion of the tissues has in a large measure disappeared." Dr. Douglas intimated that the trouble in the tongue was of an epitheliomatous character.—*Jour. Am. Med. Ass.*

CASE OF MALFORMATION OF THE HEART.—In the *Journal des Connaissances Medicales* is to be found the record of a man, 39 years of age, a tailor by occupation, who was affected with epilepsy and died of cerebral disease. During his epileptic attacks he was not cyanosed, and gave none of the general symptoms of disease of the heart. Cardiac dulness was slight. Fremitus most marked at the second intercostal space on the left side. A souffle with the first sound over the whole surface of the heart, having its maximum of intensity at the supposed location of the aorta. A short souffle with the second sound, at the left intercostal space, near the sternum. Pulse irregular. The autopsy showed that the aorta was situated in front and to the left of the pulmonrry artery, which it did not cross; it had two semilunar valves. The pulmonary artery, instead of semilunar valves, was of a cone shape, and truncated above. The orifice was narrowed and insufficient. The two ventricles were as one, the interventricular wall being absent. The auriculo-ventricular valves were normal.—*Jour. of the Am. Med. Ass.*

Dr. W. S. Brown, *Boston Med. and Surg. Jour.* speaks of Ergot in the following manner:

As a means of shortening labor ergot is seldom employed nowadays. The forceps have crowded it out of use for that purpose. But as an agent in promoting uterine contraction, after delivery of the placenta, and especially in cases of threatened flooding (some women have a hæmorrhagic idiosyncrasy), it is a valuable remedy. One reason why ergot has fallen into disrepute is the poor quality of many specimens offered for sale. Dr.

Squibb's aqueous extract rarely disappoints me. It should be borne in mind, however, that no drug is readily absorbed during extreme depression.

After much blood has been lost our main reliance should be placed on other agencies, such as injections of very hot water and mechanical pressure. The accoucheur's hand inside the womb, with external counter-pressure, is the most reliable method. In milder cases I have succeeded in arresting severe hæmorrhage by injecting hot water and vinegar into the flaccid uterus. But the water must have a temperature of at least 130° F. in the basin, as it cools during its passage along the tube.

SELF-MUTILATION IN A LIONESS. By P. S. Abraham, M. A., B. Sc., F. R. C. S.;—On the 18th of May, last year, a fine lioness in the Zoological Gardens, in Dublin, was discovered to have devoured, during the night, some six inches of her tail—the hair, skin bones, and everything. She did not then touch it for some days, but appeared to be very restless, and on the 27th of the month she recommenced her extraordinary conduct, and demolished, during the night, the greater part of the remained of the organ. She then rested awhile, but again went at it, and in four weeks from the time she began there was nothing left of her caudal appendage but the "butt"—some four inches or so—which I here exhibit. The organ was now so short that she could not reach it with her mouth, and it was hoped that in consequence she would resume her usual habit, and be satisfied with the flesh of other animals; but on the 1st of July she began to lick and gnaw off the skin of the dorsum of the right hind paw. The integument and subjacent tissue are seen to be removed from nearly the whole of the extensor surface of the foot, and it is evident that the tendons would be exposed were it not for the the granulation tissue which has formed, as a superficial layer, over them. It was quite certain that while all this was going on the animal suffered extreme pain; the stump of the tail was to be seen in a constant state of quiver, and when the back of the foot was gone the leg was drawn up, and the creature limped about the cage on her three legs.

There was nothing apparently to account for this strange behavior on the part of the lioness. She was in splendid condition as regards the fur, flesh, and appetite, and the excretions were normal. It is needless to say various methods were tried

to induce her to leave herself alone—complete change of food, sulphur and other aperients, worm-powders, syringing the parts with bitter liquids, &c.—but all with no effect. At last, indeed, it was deemed advisable to destroy her, for her suffering seemed so great, and the extent of the wound on the foot was so large, that, even if she left off eating it, it appeared impossible that it could ever properly heal and skin over. * * * * My inquiries tend to show that the carnivores which have "taken on" in this way have been nearly always females, which have either been very young, just before they began to breed, or old, at the menopause, when their bleeding period had come to an end—at any rate, that there has always been some interruption or disturbance of the sexual function; and I venture to suggest that we may look upon this perversion of taste, in our lioness at all events, as one of the manifestations in the lower animals of that protean affection which we call "hysteria."

Dr. E. E. Montgomery in the *Col. and Clin. Record* thus concludes an article on CERVICAL PREGNANCY.—In the treatment of cervical pregnancy the extreme improbability of the maturity of the fœtus in its abnormal situation, the continuous hæmorrhage, and in many cases the signs of breaking down and decomposition of the ovum and its envelopes, will demand an immediate delivery. This delivery will be difficult or easy, according to the circumstances. The finger may pass readily through the external os, or one must create an artificial opening by distinct incision. The latter was necessary in two cases described by Schülein, while in the one seen by the writer two fingers could be introduced without difficulty.

If hæmorrhage occurs, it should be arrested, and, where an incision has been necessary, it will be advisable to introduce a cotton tampon saturated with liq. ferri pernitrat., to prevent adhering together of the wound margins.

THE STING OF A SCORPION. By B. F. Hayward, M. D.,—The sting of a scorpion has been regarded by the laity at large and some of the profession as being necessarily fatal. But I had the opportunity a few months since of treating a case which proved to be contrary to the general impression. The case is as follows:

The stewardess on board one of the Southern steamers was stung on the little toe of the left foot. Five minutes after it oc-

curred I had the patient under treatment. On examination, I found a white surface of about the size of a half-dime. In the center was a little red spot, which seemed to penetrate to the bone. At first there was pain, accompanied by swelling of the foot and ankle. She complained of dullness extending first to the ankle, thence to the knee, and afterward to the hip. The limb was cold, and of a dark color, the circulation being impaired, and it seemed to me as though the blood coagulated in the veins. The pulse was rapid and feeble, the patient restless and fretful, the face pale, with dark lines under the eyes. In a few moments there was a red streak which commenced at the little toe and gradually extended to the hip.

I made a cross-incision over the seat of the wound down to the bone, and allowed it to bleed freely, and then applied hot flaxseed poultices.

Internally, I gave whisky and the aromatic spirits of ammonia in the proportion of two-thirds and one third, giving ʒ iv every fifteen minutes until the patient had taken ʒ vii, and then, as the stimulants commenced to have effect, it was decreased gradually. The next morning the only symptom present was the numbness and heaviness of the entire limb, which disappeared during the day.

I have made inquiries among the natives along the Gulf-coast of Mexico, and have been unable to learn of an authentic case of death from a similar occurrence.—*N. Y. Med. Jour.*

SUCCESSFUL TREATMENT OF THREAD-WORMS.—Dr. Millard, of New York, in a communication to the *Medical Record*, calls attention to the fact that the habitat of the oxyuris, or thread-worm, is not the rectum, but, as pointed out by Cobbold, in the colon, and especially the cæcum. In the treatment of a case of a lady 23 years of age, after injections and local treatment had entirely failed, he obtained a rapid cure by administering forty-five drops of Parke, Davis & Co.'s fluid extract of pomegranate-root before each meal; santonine (gr. iss–ij) between meals and at bedtime, with sulphate-of-soda-waters (Pullna, Marienbad) before breakfast, to cleanse the mucus from the intestinal tract.—*Med. Times.*

THE SAINT LOUIS
MEDICAL & SURGICAL JOURNAL.

VOLUME XLVIII——April, 1885.——No. 4.

Original Contributions.

ARTICLE XLVI.

THE PLACE IN CREATION AND THE WORK IN THE ECONOMY OF NATURE OF MICRO-ORGANISMS.* By HIRAM CHRISTOPHER, A. M., M. D., Professor of Chemistry in the St. Joseph Medical College, St. Joseph, Mo.

It is doubtless the fact that, of the series of living organisms that have and do still fill the earth, every species has its place and accomplishes a work for which it was adapted; but to determine this place and work is beyond the range of our possibilities. This arises from the fact that these marks of distinction are not sufficiently well defined. There must be facts and phenomena connected with each, which so mark and define the place and work or purpose of species in the economy of nature as to make them readily recognized. Thus far, only man has been assigned his position among living organisms, dead and living, and only a common and general purpose has been determined of the rest. But micro-organisms have so recently come to our view, that as yet but little that is difinite has been settled in regard to their place and work among all above them. While the physical structure of man and his wonderful psychical endowments place him at the end of the long series that extends from the advent of life on the earth to his appearance as the capital of the cloud-piercing column, the crowning work of all micro-organisms lie at the other extreme, the beginning of all as respects their grade of structure, and represent, as individuals, the basic element of all complex organisms, the living cell.

They exist most abundantly in the atmosphere as germs. As

*A paper read before the Microscopical Society of St Joseph, Mo.

matured organisms, their life is very evanescent, and generation follows generation in rapid succession. As germs, they are very tenacious of life, and endure great extremes of temperature without loss of life. These germs are absolutely invisible. Many species in their matured state are invisible, except under very high powers, and possibly under the highest. In structure, therefore, they are the simplest of all living organisms, unicellular, having an investing membrane and living contents. In some of the larger species, these elements of structure are very distinct. They exist as individuals, and are apparently gregarious in some of the species. This much it is esteemed necessary to premise in order that what follows may be the better understood and the argument of the paper more fully appreciated. It is proposed here to maintain that, *the purpose of the creation of the invisible world of micro-organisms, and their work in the economy of nature is to restore organic matter, which constitutes the fabric of living beings, to the realm of inorganic nature, or pure matter.*

For long periods of the earth's history, matter existed only in the inorganic form. The changes which it then underwent, as respects composition and decomposition, were effected wholly by forces regarded as purely physical. They, consequently, produced no phenomena but such as are characteristic of the realm of pure matter. The stability of the compounds formed in the changes which matter underwent under the influence of chemism and other forces, depended on the relative strength of the forces acting on inorganic bodies,—that tending to form combinations, and those tending to break up combinations.

But a time finally came when a new force appeared on the earth, acting on matter, and producing combinations of elementary matter, categorically distinct from all that preceded them. These combinations took wholly different forms, and presented phenomena, not only foreign to all produced by physical forces, but also entirely above their range and power. These new forms of matter appear as structures, and among the highest of these phenomena gradually crop out, which demonstrate that a new force has appeared. This force we call life, and the structures it builds up out of dead matter, we call living beings. Influencing the elements of matter in this direction, this force or power fills the land and air and waters with living creatures of every grade of structure and every variety of form. But its individual work continues for a time only. The activity of life disappears from

the organism, and it lies down in death. In death, the elementary constituents of these bodies sustain the same relation to each other as in life. The matter composing them is still the same, organic, and must ever so remain unless in some way broken up and reduced to its inorganic state. If this were not done, dead organisms would accumulate to the discomfort, and, finally, to the destruction of succeeding generations, and the equipoise, consequently, between the two kingdoms of matter, organic and inorganic, destroyed to the disturbance of the necessary uniformity in the economy of nature. There must, therefore, be means provided, in the regular and uniform operations of the laws and processes of nature, for the removal of the dead by a return of the matter which makes up their fabric, to the realm whence it was taken, that of pure matter.

To understand what is meant when we speak of organic matter being restored to the inorganic state, it will be necessary to remark that the elementary substances or atoms which compose the molecules of organic matter sustain a relation to each other categorically different from that which they hold to each other in inorganic substances; a relation which was brought about by the life-force, controlling and determining the attractions of the chemical force, influencing the atoms of matter to form compounds contrary to, and wholly different form such compounds as the chemical force forms uncontrolled, as in the inorganic world. Hence, the compounds which the life-force forms are organized and organic, as the living contents of cells and the tissues and products which cells form in the discharge of their functions. Now, when a living organism dies, all the matter which constitutes its fabric is organic—a life-product. This matter becomes inorganic, when the atoms of all the molecules of the organic matter, leave their life relation and assume that which they have in the inorganic kingdom. The nitrogen, for instance, which is an element of all the higher compounds of organic matter, gets back again to its place among the nitrates or ammonia compounds; and so as respects carbon, hydrogen, oxygen, and all others that are constituents of organic compounds.

Now, as to the means by which organic matter is reduced to the inorganic state, the general view is that the former is spontaneously decomposable; that when the influence of life is removed, it begins to give way at once under the influence of oxygen, and is ultimately destroyed by the process of oxidation.

This view is held by most, if not all, chemists and physiologists. But later investigations have shown that too much power has been ascribed to oxygen. In its free state, and acting with its native intensity, it has been shown by Prof. Tyndall, that it has no effect on organic matter dissolved in water. This fact alone is enough to arrest our attention, and assure us that the decomposition of organic matter is not nearly so simple as the theory of oxidation would make it. A more correct view of the processes of fermentation and putrefaction has shown that the action of oxygen in these processes is not that of simple and direct oxidation, as formerly supposed; but as an adjuvant to process of nutrition, as heat and light are, though entering into the combinations effected by the life-force. Not entering into combinations directly with the carbon, hydrogen and nitrogen of organic compounds, its action in nutrition can not be regarded as the same as that of ordinary oxidation in combustion. Nor does it oxidize organic matter that is no longer connected with living processes. Hence, organic matter is not reduced to the inorganic state by the simple process of direct oxidation, nor is it spontaneously decomposable, its molecules decomposing into inorganic molecules, when and because life is absent from the organism.

It has long been known that some organic compounds are very stable, resisting decomposing agents acting under ordinary states and conditions. The compounds of carbon and hydrogen, such as the turpentine and coal oil series, are known to yield to oxidation only at a high temperature; and many of the carbohydrates, such as sugar, starch, and gums, continue unchanged under a wide range of physical conditions. If kept perfectly dry, they will continue unchanged indefinitely. The same is equally true of animal tissues which are nitrogenous as to composition. Common people know that animal tissues remain unchanged if kept perfectly dry. In some parts of the far west meat is preserved in this way, which is possible on account of the dryness of the atmosphere. The reason of this seems not to have been known, or, at least, not noted by either chemists or physiologists. It was reserved for Prof. Tyndall to direct investigation into the proper channel, though he was not seeking a solution of this question, but endeavoring to determine whether spontaneous generation is a law of nature or not. Investigation has led to a correct understanding of the influence of water or

moisture in the changes which organic matter is known to undergo under the ordinary states and conditions of the atmosphere. It may be remarked as somewhat singular that subjects so apparently dissimilar as are spontaneous generation and the stability of organic compounds, should be so closely connected that determination of the one becomes the determination of the other, yet such is the fact, and hence the important bearing of Prof. Tyndall's experiments on the subject under consideration.

In order to appreciate the bearing of the experiments of Prof. Tyndall on our subject, it will be necessary to state their conclusions at least. His experiments were made with nitrogenous matter, both animal and vegetable. Infusions of such substances were enclosed in glass tubes, and hermetically sealed. They were then exposed to sun-light and the temperature of a kitchen for a year. At the end of this time, the tubes were broken and their contents examined. They were found to be as pure as when enclosed. There were no organisms in them; but after an exposure to the air for 48 hours they were swarming with micro-organisms. The question of interest to him was, whence these organisms? and the answer was, from the air—from germs always present in the atmosphere. With us the question is, why did not the organic matter undergo decomposition in the tubes, if it is spontaneously decomposable? and the answer for us is, because organic matter is not spontaneously decomposable. It is, therefore, a fact that spontaneity of either generation or degeneration is not a law of nature, and it will appear as we proceed that organic matter is as stable of composition as is inorganic, and that physical agents have less effect, indeed, in this respect, on the former than on the latter. This fact will soon be discovered after one has attempted to separate diatoms from organic matter by physical agents, as oxidizing salts. What Virchow affirms of elastic tissue may be affirmed of organic matter in general, that it resists the action of the strongest chemical agents. As, therefore, organic matter, in some forms, at least, is stable under the action of strong chemical agents, it is not too much to affirm that all organic compounds are stable under ordinary conditions and circumstances, and, consequently not decomposable by physical agents. How, then, is organic matter to be returned to the inorganic world?

The disagreeable odors present in the infusions of Prof. Tyndall, after exposure to the atmosphere, are to be attributed to the

micro-organisms so abundant in the fluids after exposure; and as these odors are either inorganic substances, or very low organic compounds, the vital processes going on in these organisms must be regarded as the source of these compounds. This conclusion finds corroboration in the fact that alcohol and carbon dioxide are set free or generated in fermentation, and disgusting odors in putrefaction, processes now known to be vital and not chemical. In these processes micro-organisms are essential factors; so essential, indeed, that they are impossible in their absence. This statement is placed beyond questions by Prof. Tyndall's experiments, and can readily be confirmed by any one who will subject organic infusions to the action of the germs of micro-organisms under different states or conditions. If such infusions be exposed at a low temperature, or when some so-called germicide has been placed in them, they will be found to contain no organisms. Reverse the conditions, and they will swarm with them. Then low organic and inorganic compounds are emitted, and not till then, a fact that shows that micro-organisms give rise to these substances, while using the organic matter in the fluids as food.

That unicellular organisms, living as separate individuals, have the power of decomposing organic matter through the process of nutrition, is clearly evident from the fact that the living cells in the leaves of plants decompose inorganic compounds, and form of their elements, a homogeneous organic substance of the highest constitution, and then from this compound, in the process of nutrition throughout the plant, in root, stem, and leaf, form not only the tissues or constituent parts of the plants, but also all the substances found in them, as direct or indirect products, and all the three general series of organic compounds. Dr. Carpenter says, respecting the genesis of these classes of substances, and when speaking of elaborated sap: "Besides administering to the development of new tissue, the elaborated sap of plants supplies the material for the production of that immense variety of organic compounds in which the vegetable world is so rich, * * * Now of the cause of the immense variety of these products that presents itself in different plants, and even in different parts of the same plant,—the fixed and volatile oils, coloring matter, alkaloids, acids, etc., etc.,—no other account can be given than that each component cell generates its own peculiar products at the expense of the nutrient material supplied to all alike, just as, among unicellular plants, each species may form

a distinct organic compound," and also inorganic, as carbon dioxide in fermentation. Such is the power and work of unicellular organisms, whether as separate and disconnected individuals, as are all micro-organisms, or as their analogues, the living cells of matured organisms, connected together into a general whole by connective tissue. If, therefore, organic matter does not undergo decomposition when excluded from the air, or impregnated with substances which prevent development of germs, as the so-called antiseptics, then the conclusion can not be resisted, that organic matter suffers decomposition only when subjected to the action of cell-organisms in the process of nutrition. That this conclusion is unquestionably, true facts establish. Let us now consult these.

[TO BE CONTINUED.]

ARTICLE XLVII.

THE ORIGIN OF THE NERVOUS SYSTEM. A POSTHUMOUS PAPER. By ROBERT NELSON, M. D., of New York, edited by his son E. C. NELSON, M. D.

An organ may appear simple in structure, and hence we may suppose that its office is the same, but if we would discover the nature of either, we must begin our researches by disabusing ourselves of all preconceived notions. If we do not observe this caution at the threshold of our pursuit, disordered knowledge will soon accumulate, obstruct our path and stupefy us, as it has our predecessors.

As proof of this assertion, we need refer to no more than one example of the nervous system. What is there in any of the higher animals more simple than the structure of a nerve? What more simple to all appearance (though it is unknown) than its office? Nevertheless, it is only a few years since sensory and motor functions have been physically proved to be different. As early as the time of Galen it was perceived that the nerves exercised a double function; for it was discovered that some persons suffered under a paralysis of motion only, others of sen-

sation only, and others again of both motion and sensation. But it was not seen that the nerves were compound, for each looked alike and resembled a simple cord.

No portion of the human fabric shows more strikingly than the nervous system does, that physiology cannot be profitably studied in the same order as that in which we acquire our anatomical elements. The anatomist necessarily begins with a whole, or with large parts, and follows them to less and lesser divisions, until these become too small for perception; then imagination steps in. The large nerves continue to divide as they recede from the brain: and imagination paints it so that the finest needle, nay, mosquito sting, cannot penetrate our skin and escape wounding one of the numerous filaments. In this way has our previous study of anatomy perverted our judgment before we enter upon physiology. The presumed belief that the nerves are the seat of pain suggested the idea that every point, even the smallest, contained one; but this ought to have suggested another—that those nervous filaments must constitute the greatest portion of the skin; an absurdity which is contradicted by the smallness and scanty number of *known* nerves between it and the brain.

You are now prepared to perceive that the nervous system is peculiarly complex in the higher animals. In man it is made up by a multiplication of several grades of creation, each one becoming more complicated as we rise from the medusæ to the mammalia. These ascending grades imply new wants in the animal, which can only be supplied by new functions, for the execution of which, new or additional organs are provided. To fulfil this intention, nature has created a triple nervous system in the highest animals. The first nervous system is the *nutritive* and it necessarily exists in all animals from the lowest to the highest The second is the *motor* system, created to regulate such instinctive or necessary motions as are essential to the continuance of the animal and the third nervous system is the *sensory*, given to higher animals as a protection to avoid noxious intercourse and fill special wants. Besides a triple nervous system, each of its divisions consists of three distinct portions in all animals above insects; of two portions in all animals below this class; and of one in protozoa.

Beginning our research where nature begins her work, we find the first portion existing as medullary matter, diffused

throughout the mass; the second as medullary matter concentrated into cords; and the third as medullary matter accumulated into masses, constituting an inextricable weft of the extremities of the cord, called ganglia, or brains. Each of these portions exist in each of the three divisions of the nervous system.

In those primitive animals, as medusæ, which possess no special sense, there is no other nervous system than the first portion of the nutritive; which exists diffused through their mass, like coloring matter in a fluid. In this view of the subject, there will be no difficulty in understanding how the presence of nerves is manifested, though unseen, in all the tissues of the body. They are so penetrated with medullary matter, the molecules of which lie so close to each other, that no room is left for the insertion of the finest instrument without touching some one who will betray the presence of the foreign body.

Yoophytes have diffused medulla only; but no system of nerves, for being destitute of organs, there bodies are mere masses of gelatinoid substance. They are homogenous animals and may be divided into pieces, each of which will remain an entire animal; for, as no special organs existed, the division will be no less provided with nervous substance than the mass was to which they belonged; and nutrition, which is effected through the agency of medulla, will continue in these portions as perfectly as it did in the parent; since they imbile their nutriment at any surface, and appropriate it without degestion or circulation, by imbibition or endosmosis as well while they are pieces as when a whole body.

If we ascend in the scale of creation as high as the Hydra Viridis, we shall see an approach to specialty in the hollow form of the animal. In its cavity, digestion is performed; but if it be turned inside out, it will digest equally well in this way after a short time. This is one of the earliest appearances of an organ, which is the stomach: but it is of the simplest form and office; and as yet no concentration of the medulla into cords is seen, because no one part of the animal is different from the other, and consequently needs no system of nervous cords to establish a dependence of separate organs on each other; since the whole animal is no more than a single organ, all portions of which are alike. As soon as distinct organs are formed within the mass or as appendages to it, a concentraction of medulla takes place among nerves, both as constituent portions of such part, and to

unite it physiologically in harmonious functions with the whole.

As the number of organs increases, the nerves of each will progress beyond the individual system *i. e.*, organ, to reach and form junctions with similar extensions from other organs. In this way are formed those sundry foci of medulla called ganglia, when they are small, and brains when they are large.

To illustrate this view, let us look at one of the earliest separations of protozoa into distinct parts; as afforded to us by the Rhisostoma. If we carefully examine the vermicular appendages that hang from the body, we may discover something like a concentration of medullary moleculæ in the centre, extending into the body, seeking a union with each other at the stomach [Vid. Carus, Pl. I. fig. XIII.]. Rising still higher in the scale of creation and looking at the Asterias, or star fish, we find this medulla still better defined, showing a more distinct linear form in each radius of the animal and converging towards the central part of the animal, where they unite and form a ring around the stomach which, if considered as a brain, is the first that is seen and exists in the mollusca around the stomach, the œsophagus or mouth. [Carus, Pl. I. fig. XV.

One degree higher brings us to a class of compound animals; the individuals of which may be considered as composed of several simple systems joined together in a row. Such are the annelids, and their type is present in the trunk of all superior animals. Their body is made up of a succession of rings, whence their name, in each of which is a whole nervous system and which is linked to the system of the ring above and below by a uniting cord. This cord constitutes the largest share of their nervous system, and is represented in man by the great sympathetic. [See plate of Scotopendra in Mayo, No 2 and Carus, Pl. 6, f. 24 and 26.] In all those species in which the digestive canal is little more than a tube extending the length of the animal, the nutritive system is so simple that the portion of tube in each ring may be considered as the whole apparatus of nutrition in that part, and, as the animal has only the lowest degree of want and instinct, it has no nervous system perceptibly higher than the one mentioned. But, in those species which are more elevated, the digestive apparatus necessarily is more complicated and as every part of the animal must enjoy the advantages of such an apparatus, it is made single for the whole animal; and accessory parts are created whose office it is to distribute a por-

tion of the single digestion to all the rings. Such an arrangement calls for a corresponding nervous formation as a special portion of the ventricular apparatus. This has been already seen in the mollusca, in which animals it is the equivalent of the pneumogastric system of man and all intervening animals.

Still higher, in fioli we find not only the annelid and the pneumogastric systems already mentioned; the first of which is purely nutritive and the second purely motor; but also the beginning of an accessory system for faculties. This system is sensory and is placed at the extremity of the animal, because it is mostly there that the instruments of these faculties, such as sight, hearing and feeling, are situated. While the nervous system of ring vertebra of the fish is more highly developed than that in the annelids, it is yet at a low degree when compared with the mammalia. It consists of the nutritive system in each ring (verterbral section), the brain or ganglion of which is linked to its neighbor, forming a great sympathetic—of the visceral motor system, being the pneumogastric system and of a spinal and cerebral system,—the first for motion and the other for sensation. Thus it is, that no nerves are seen before a portion of the body becomes an individual organ; and in proportion as this organ shall have several functions to perform for itself or for other dependencies, will its nervous system become proportionally complicated.

[TO BE CONTINUED].

ARTICLE XLVIII.

ASIATIC CHOLERA, ITS ETIOLOGY AND TREATMENT.* By ADOLPHUS GREEN, M. D., of St. Louis Mo.

Synonyms. Cholera Asiatica sive indica, s. orientalis, s. epidemica; in contradistinction to cholera nostras, s. indigena, s. cholera morbus.

History. Asiatic Cholera was, until 1830, entirely unknown in Europe. Its native home is in East India, especially at the mouth of the Ganges and Bramaputra. After some scattered

*Read before the St. Louis Medical Society, March 14th, 1885.

minor epidemics in 1816, a powerful outbreak of epidemic cholera took place in 1817, at the mouth of the former mentioned large rivers, which soon invited the attention of other countries on account of its evident tendency to spread. Pursuing its way along these rivers, which were at that time the principal if not the only means of commercial intercourse, it gradually extended over the whole peninsula, and towards the close of the year 1818 it had already wandered through all East India. But it did not stop here; forward was its motto. After visiting first the islands of the Indo-Chinese Archipelago and causing great havoc there it turned to China, carrying horror and devastation. It then persued its way westward, and arrived about the year 1821 at the coast of the Persian Gulf. About the year 1823, it, for the first time, paid its visit to Europe and established a cholera epidemic in Astracan, at the mouth of the Wolga. Here it stopped without penetrating further into Europe, but it was only a kind of temporary rest, to appear again after sometime.

In 1829 the Cholera again made its appearance upon European soil, in Orenburg, and in 1830 in Astracan. From there, it spread with astonishing rapidity, up stream, along the river Wolga, and within two months arrived at Moskow, in Sept. 1830. Its further march, to the other countries of Europe, could perhaps have been successfully checked, had it not been for the Russian Polish War in 1831, which afforded very favorable opportunities for the further propagation of the disease. In future cholera epidemics it was also very evident, that in time of war the best opportunities were offered for the spreading of this disease. At present it is also war, the Franco-Chinese War, that imported it into France, and from there to other countries.

In April 1831, the cholera was imported by the Russian Army into Poland, and in a short time afterwards, in May 1831, the epidemic cholera was already in Danzig, and in spite of the most stringent quarantine regulations, it was impossible to check the further spread of the devastating disease. In August 1831, it reaped a rich harvest in Berlin, and in Sept. of the same year, in Vienna, while at the same time it was brought from Persia to Constantinople. Cholera raged in England in 1831, in France in 1832, Spain in 1833, Sweden in 1834, Italy in 1836, Tyrol in 1836, Bavaria 1837. From England the disease was imported, in 1832 by emigrant ships, to America. From Persia, where the disease raged in 1846, it made a fresh start and visited Germany

and from there was carried to the greater portion of Europe. In 1849, the cholera was imported to our country by the Swanton and the New York. When these vessels left Havre in the autumn of 1848—Oct. 31 and Nov. 9 respectively—not only was there no cholera at that port, but there had not been any in all France. It did, however, exist in middle Europe, whence came the migrants who embarked on board these vessels and was carried by them to the ports of New York and New Orleans respectively. Similar cases occurred in 1854 and in 1866. In the latter year, the disease broke out on the steamer England five days and on the steamer Virginia eight days after leaving a healthy port. In 1873, three distinct outbreaks of the disease occurred at widely remote points in the United States by similar means. Thus it is quite evident, that the history of Asiatic Cholera is a history of the travels of a powerful enemy of mankind, or better, a history of transportation by land and by sea, a description of how we carried that awful scourge in ourselves, in our clothes, in our ships, to our country, to our relations, and to our families. But what is that which we could bring from one place to another?

Is it a material something?

Has it a bodily nature?

In the present light of science we can satisfactorily answer these questions.

Etiology. Asiatic cholera is a specific infectious disease, and like other infectious diseases can only be produced by infection. The word infection, from *inficio*, to put into, to mix, to stain, to taint, conveys the thought of bringing the disease, or the cause of the disease into the human body. Hence by infection we mean, a morbid material producing a disease, imported into the human body from without. But infection in the sense of modern science, means something more than mere importation from without, it involves that essential signification, though not implied in the word itself, namely, the reproduction of the morbific material, the cause of the disease. This property of reproduction, involves the acceptation of a bodily nature of the sickness producing material. Bodies endowed with the ability of reproduction, we call organized or organic bodies. Bodies capable of reproduction must possess life, hence they are a living contagion, a *contagium vivum*. These are low vegetable organisms, complexes of atoms, which are continually undergoing disintegration, but by taking up proper material for their nutrition, they repair the loss, and thus con-

stantly retain their chemical composition as well as their form. The various vegetable poisons, as Aconite, Belladonna, Strychnia, etc, introduced into the animal economy, by one way or other, will call forth various morbid phenomena, according to their nature. But as these vegetable poisons do not possess that incomprehensible something, that we call life, there is a great difference between them and those vegetable organisms, disease germs, that possess life.

(1.) The most virulent poison, either of the vegetable or mineral kingdom, will only then produce its noxious influences, when given in a *certain quantity* and in a certain state of concentration, a very minute quantity and largely diluted of any of these poisons introduced into the human body, would fail to produce any morbid symptoms whatever, and sooner or later would be entirely eliminated from the system. On the contrary, the least, hardly imaginable *minute* quantity, of that living infectious material, disease germs, once introduced into the animal body, susceptible of the specific disease, which that specific living germ is capable of producing, will sooner or later call forth all the morbid phenomena belonging to that specific disease.

(2.) Poisons, properly so-called, *i. e.* not possessing vitality, display their morbid actions as soon as they have entered the circulation of the blood; whereas, those living disease germs, those micro-organisms, do not display immediately their morbid action, but a period elapses between the introduction of the morbific principal into the animal economy, and the invasion of the disease, which we call incubation, brooding, hatching, an appellation justifiable only in infectious diseases. The micro-organisms, the parasites producing the disease, need more or less time for their development and multiplication, before they can display their morbid actions, and the phenomena depending upon them. This period of comparatively good health, enjoyed by the person infected, between the introduction of the infectious principal and the acute display of the morbid phenomena, the *period of incubation*, varies in the different infectious diseases. For instance, in vaccinia from two or three days, in scarlatina from four to seven, measles from nine to eleven days, in typhus abdominalis from twelve to sixteen, in asiatic cholera it is variable, while in some cases a few hours suffice for the infectious material to develope its morbid action, in others two weeks and even more may elapse, before the first phenomena of infection are displayed. In hy-

drophobia, incubation can last until sixty days, and in some cases from eighteen to twenty-four months. This difference in the period of incubation, even in one and the same disease, depends partly upon the quantity of micro-organisms introduced into the system, and partly upon the susceptibility of the person infected.

(3.) In poisons there is no such thing as perfect immunity with some, and strong susceptibility with others. Aconite, atropia and strychnia, for instance, will injuriously effect any one, with the only difference in the quantity of the poison necessary for the one or the other. Whereas, in some of the infectious diseases, there is such a thing as perfect immunity and high susceptibility. There are some children who will not contract scarlet fever, even by the strongest exposure to the contagion, others again will do so by the least exposure. Some people, though not many, will not be infected by small pox and can not be successfully vaccinated. Some will not get the cholera even if they be ever so much exposed. This immunity and susceptibility depends upon the composition of the fluids of the body. The different parasites require different elements of nutrition necessary for their development and multiplication. In the one human body there is an abundance of that unknown material, and that body is therefore very highly susceptible; in another there is very little or none at all of that unknown material, the necessary nutrition for a certain specific germ, and such a person possesses comparative or entire immunity from a certain specific disease. This explains why some infectious diseases, as measles, scarlet fever, variola and whooping cough, etc., as a rule (of course with some exceptions) affect a person only once in a lifetime, or in other words are self protecting diseases, because those germs have taken up that certain unknown material from that person once infected, and the body of such a person offers no more a favorable soil for the development and multiplication of that specific vegetable parasite. Such a person remains from thence perfectly and entirely insusceptible to that particular specific disease for the remainder of his life.

But, should such a person, either by some kind of diet or by some means or other which science has not as yet discovered, regain that certain unknown material, from that time his immunity ceases, and he is more or less susceptible to that certain specific infectious disease. But no matter how strongly susceptible a certain person may be to a certain specific infectious

disease, even if he should be as susceptible of a certain infection as dry gun powder is of exploding by the least spark of fire, nevertheless he will never become infected, unless his organism comes in close contact with that infectious material, as the dry gun powder, when properly preserved, will never explode unless coming in contact with that spark of fire. Thus, a child, however susceptible of scarlet fever, measles, variola or whooping cough, would never become affected with one of these diseases unless the specific germ, the cause of one of these diseases, be introduced into its animal economy. A person, however feeble he may be, however affected he may be with chronic bronchitis, or however suffering from poverty or privation, will not become tuberculous, unless the specific germ producing tuberculosis be, by some means or other, introduced into his animal economy. He may die from general debility, from chronic bronchitis, or as a result of poverty and privation, but he will never die of consumption or tuberculosis if tubercle bacilli have never been introduced into his system. Asiatic cholera would never make its appearance here, unless the cholera germ, the cholera bacillus, be imported here from some other place. But, on the other hand, in an epidemic of cholera, though a person would not die from asiatic cholera, as a result of drinking impure water, so long as this water be not impregnated with the cholera germ, or as a result of uncleanliness, so long as the cholera germ has not been transplanted into this unclean locality and established there a fruitful centre of infection, or as a result of a slight catarrh of the stomach and bowels, so long as the cholera germ has not been introduced into his alimentary canal; nevertheless, as it is true that a feeble person with a diminished degree of resistance, that one affected with bronchial catarrh, or one suffering from want and privation, may contract tuberculosis even on a slight exposure to the causes of the disease; that is, either by coming in contact with a consumptive person, or by some other means getting only a very small dose of contagion, which under other circumstances the normal power of resistance of the healthy organism could easily withstand. So it is likewise true, that one whose alimentary canal has been irritated by the use of impure water or by the emanation of filth and uncleanness, or has become vulnerable by the catarrh of his stomach and bowels, will contract a most severe attack of asiatic cholera even by only a very

small dose of the cholera poison, which, under opposite circumstances, would not have affected him at all.

(4.) Common poison not possessing vitality, if introduced into the animal economy in a quantity sufficient to produce its morbific effects, can not reproduce itself. Other animals, in close contact with it, will not become affected by it. If you give a dog the one-sixth of a grain of strychnia, which is sufficient to kill him, and while the dog is yet alive and the poison is equally diffused in his blood, you introduce a drop of his blood into the cellular tissue of a healthy dog, the latter will not become affected, because the quantity of strychnia contained in that drop of blood is not sufficient to produce an effect. Still less would there be any if you introduce several drops of blood from that second into the third dog. But if you introduce a minute, hardly visible, quantity of vaccine lymph, from the vaccine vesicle of one child into the skin of another child, susceptible of vaccina, you will produce another vesicle, from which you can successfully vaccinate *ten* other children, and from each of these ten children, ten again, and so on, literally without an end, so long as you have enough individuals susceptible of vaccina, you could vaccinate thousands of thousands from the first minute, hardly visible quantity of lymph. If you should bring a child sick with scarlet fever into a healthy locality, and allow other children to have free communication with it, you would produce an epidemic of scarlatina in that locality from that single child. Import one case of asiatic cholera into a locality free from it, without taking any precautionary measures to prevent its further spread, you will, under circumstances favorable for the spread of that disease, that is for the development and multiplication of the cholera germ, as a certain degree of heat, moisture, impure water, filthy locality, etc, have an epidemic of asiatic cholera from that single cholera case. Again, if you take a grain of corn, wheat or any other seed, and deprive it, by one process or an other, of its vitality, of its latent life, and place it under the most favorable circumstances for growth, as a rich soil, moisture, sunlight, etc., that seed would not grow, but decompose. The same is the case with that vegetable parasite, in order to infect, *i. e.* to reproduce itself and multiply in an animal body susceptible of that specific infection, that parasite must possess vitality. Hence, by disinfectants, which presupposes infection, we mean such agents as are capable of depriving the disease germ of its vitality. Then, and only then, that germ

ceases to be infectious. This points to a very plain and easy method of preventing the extension of any epidemic, which is a very important part of treatment. But before we can speak of the effective means for the prevention of its extension, we must first consider the manner of its infection; *how* and *when* it becomes contagious. It is very important to know that there are contagious materials, disease germs, which obtain their development, *i. e.* become ripe for activity, only inside the animal organism, and others which acquire this development outside of the animal body.

The former, Pettenkoffer designates as endogenous, the latter as exogenous contagious materials. There are, however, certain conditions necessary for the exogenous germs to undergo, in order to become effective. These are the life conditions of the germ. What these conditions are we do not know. In the one case these conditions are found in the ground, in another in the air, in a third in, or upon, a vegetable or animal organism, even in the chamber, upon the linen of the patient or upon the floor of the sick room. The cholera germ, or cholera bacillus, as the celebrated Dr. Koch calls it, belongs to the latter class, to the exorgenous ones. When cholera bacilli have been introduced into the alimentary canal of a person susceptible to this disease, this person experiences a longer or shorter period of incubation, according to his lesser or greater susceptibility and the quantity of the poison received. During this period of incubation, these germs multiply and reproduce themselves in the alimentary canal. The period of incubation once over and the morbid phenomena displayed, each and every diarrhœal discharge of the cholera patient, contains a new crop of pestilential poison, which has only to undergo certain conditions necessary to its development and maturity in order to become ripe for contagion. The period necessary for the development of the germ, outside of the human body, varies from a few hours to several days, according to the stage of the germ at the time when discharged from the human body. These discharges containing a new crop of cholera bacilli, are, immediately after having left the alimentary canal, entirely devoid of any contagious properties whatever. Hence the body of the sick person cannot infect others, either by contact or by his expiratory movements. Cholera, therefore, is not contagious in the same sense as small pox, scarlatina or measles. A healthy person, even if he be susceptible of cholera, might sit a whole day

at the bedside of a cholera patient, and not become infected. Nevertheless cholera is contagious in another way. As the germs may find those conditions necessary for their development upon the human body, upon the linen or upon the floor of the sick room, when even a minute portion of his discharges have been deposited either by accident, neglect or helplessness of the patient, then the nurse who touches with her hands that part of the body of the patient upon which may have adhered even a very minute portion of his discharges, the woman who washes the linen soiled with them, or persons visiting the sickroom and inhaling the germs liberated from the dried up and pulverized portion of his discharges left upon the floor of the sickroom and floating in its atmosphere, would become more or less infected, according as they are more or less susceptible to this disease. Consequently, the effective means to prevent the extension of cholera within a certain locality are self suggesting. The source and fountain of infection as well as of the propagation of asiatic cholera, namely, the discharges of the cholera patient, ought to be thoroughly and effectually mixed with a powerful disinfectant, as a solution of carbolic acid, from 5 *per cent.* to 10 *per cent.*, or one part of bichloride of mercury to one or two thousands parts of water. I, for good reasons, prefer the former. The nurse should wash her hands in a solution of 5 *per cent.* carbolic acid after touching the soiled part of the patients body, and each time before handling any food. The linen of the patient should first be immersed in a strong solution of carbolic acid before washing them, and the floor of the sickroom should be sprinkled over with the same strong disinfectant. These remarks apply as well to those that have only a slight and seemingly insignificant diarrhœa, which may or may not be incipient cholera, as well as to those that lay prostrated from a malignant attack of the same disease.

Treatment. There are a good many remedies recommended in this disease, of which opium ranks foremost, for instance, opium and camphor; opium, campor and ipecac; opium, camphor and acetate of lead; and opium and calomel, etc. We can not deny that opium judiciously applied, judiciously as regards the stage of the disease and the quantity of the drug, is a powerful agent for doing good, namely before collapse has set in, or even before a tendency to collapse shows itself, for then it would undoubtedly do harm and hasten the fatal issue. Even when

there should not be any tendency to collapse displayed, but we see that opium does no good, that in spite of its liberal use, with or without other remedies, it does not arrest the inordinate discharges, we must be careful not to push it too far, else it might accumulate in the body and display at once its injurious effects. Other remedies, as subnitrate of bismuth, tannic acid, liquor ferri sesquichlorati and other astringents, strychnia, etc. are likewise recommended. The so-called Russian drops:

℞ Tr. Valerian Aether.....℥ij.
Vin. Ipecac.....℥j.
Tr. Opii Crocat.....ʒj.
Ol. Menth. Pip.....gtt v.
M. Sig. Twenty to seventy-five drops every one or two hours.

Calomel is also recommended and does some times very good service, especially when opium is contraindicated. Prof. Lebert recommended one third of a grain of argent. nitras. combined with one-sixth of a grain of opium, made into a pill, and of such pills, one or two or even three may be given several times a day, according to the extent and frequency of the choleraic discharges. He, as well as other writers upon this subject, acknowledge that these remedies may do good, only when administered at the beginning of the disease, or at least before a state of collapse is setting in. Although, sometimes the most desperate case gets well, yet, at other times the above mentioned remedies, even judiciously applied and at the beginning of the disease, will have no effect whatever. And this does not take place where the disease is ushered in by storm, where violent vomiting and purging alternate in quick succession, where there are severe muscular cramps, burning sensation in the epigastric region, unquenchable desire for cold drinks, that are quickly thrown up again, hardly perceptable radial pulse, skin turning cold, hurried and oppressed breathing, and a rapid progressing exhaustion, but even sometimes in cases where the disease is insinuating itself, by a seemingly insignificant choleraic diarrhœa, and is gradually progressing to that fearful state of collapse which our well directed and judiciously applied remedies ought to prevent. This ought not to appear strange, when we consider that the above mentioned remedies, good and efficacious as they are in many cases, can not remove the cause of the disease, *i. e.* they can not deprive the cholera germ of its vitality. Hence it is self suggesting, that if we could find a remedy capable of killing that living parasite in the alimentary canal, which is the

cause of all the mischief, without at the same time injuring our patient we would have *the remedy*.

Dr. Herman Eichhorst, Prof. of practice of medicine in Gœttingen writes: "Starting from the idea, that in cholera we have to deal with Schistomycetes (cleftfungi) antiparasitic remedies might be tried. In an epidemic, in Kœnigsburg in 1871, where I acted under the directions of Leyden, extensive use was made of the internal application of carbolic acid. It was given in a one *per cent.* solution, in combination with spiritus aetheris nitrosi and aqua menth. pip. I must sincerely acknowledge that the thorough employment of this treatment could not show any special favorable result. To-day (he writes this in 1880) we might, perhaps, for good reasons, employ salicylic acid or salicylate of sodæ, especially as these two drugs, under certain circumstances, possess costive properties. Benzoate of sodæ might also be tried. The difficulty in the employment of such and the like remedies, consists that by the continuous vomiting and unrestrainable looseness of the bowels, the medicines can not be absorbed from the intestinal canal. Perhaps it were not irrational to introduce these remedies by means of some funnel arrangement, through the anus into the intestine." The same author when speaking of narcotics, says: "But a few years ago, they recommended in Russia, as a specific in cholera, the subcutaneous injection of hydrate of chloral, according to my observations there is nothing to hope from it." Allow me to make a few remarks upon the above statements of Dr. Eichhorst.

(1.) We can not expect any result from one *per cent.* solutions of carbolic acid. For, aside from the fact that a one *per cent.* solution of carbolic acid is a very weak germicide, and after having been introduced into the stomach and mixed with the fluids there, ready for expulsion by the act of vomiting, it becomes more diluted; even this weak germicide, cannot be employed in sufficient quantity, for fear it might accumulate and poison the system, having in this disease more or less suppression of urine, and we cannot therefore expect it to be eliminated by the kidneys.

(2.) Salicylic acid and salicylate of sodæ, besides being very unpalatable and therefore quickly thrown up, are dangerous on account of their depressing action upon the heart.

(3.) Benzoate, does not possess a depressing but rather a strengthening influence upon the hearts action, and might, there-

fore, be tried, though it is not palatable and is not a general germicide and, therefore, unreliable.

(4.) The use of chloral hydrat in subcutaneous injections I consider irrational, from the difficult circulation of a cholera patient we cannot expect much of hypodermic injections, it might do good, given internally in small doses, not as a narcotic but as an antiparasitic. After several trials and experiments, I feel happy in being able to present to the Profession, what I think to be an efficient and comparatively harmless remedy in cholera. This remedy is characterized by its antiparasitic, antifermentative, antiseptic, antiemetic and anodyne properties, and last but not least by its very pleasant odor.

Benzol 4 *per cent.*, Carbolic acid 1 *per cent.*, Chloral Hydrat 2 *per cent.*, Oleum Carui 1 *per cent.*

℞ Benzol.....℥ij.
Mucil.. Gum arab.....
Succi liquirit. dep. aa..... .....℥j.
Addes Carbolic Acid.....℥ss.
Chloral Hydrat..... ...℥j.
Ol. Carui..... .....℥ss.
Aq. dest.....℥iv.
M. Sig. Well shaken up. One tablespoonful every one or two hours.

Of these drugs only benzol will need perhaps a little explanation. It is a hydro carbon, containing six atoms of carbon and six atoms of hydrogen, it is a colorless oleaginous liquid, possessing an agreeable odor, very inflamable, and as it is not soluble in water it must be prescribed with mucilage of gum arabic. Its antiparasitic properties (animal parasites) being very great, it has been given with success in trichinosis. Dr. Naunyn has established its antifermentative properties as well.

A few drops arrested fermentation in a one *per cent.* solution of grape sugar, to which has been added yeast plant. By reason of the above named experiments, benzol has been given by Naunyn and others for abnormal fermentative processes in the stomach with the best results. In cases where, in spite of a long medication with creosot assisted by a diet free from starch and sugar, no improvement could be obtained, the gastric symptoms, namely: vomiting, pain in the epigastric region with loss of appetite, disappeared after a few doses of benzol, *i. e.* twenty drops two times a day. Experiments of Drs. Snow, Simpson and Nunnely prove, that it possesses anæsthetic properties also. For this reason it has been recommended for inhalation in whooping cough. This mixture is by no means incompatable, but they rather assist one another in their germicide properties. Of course, a few drops of tinct. opii may be added if necessary and if circumstances require it, the carbolic acid or the chloral may be left out.

2605 Wash Street.

Clinical Reports from Private Practice.

Article XLIX.

A Question in Medical Jurisprudence* By W. W. Watkins, M. D. of West Plains, Mo.

Mr. President.,

On Sept. 5th, '84, Dr. N. C. Beery and myself were called in consultation with Dr. L. to assist at his daughter's confinement.

Patient aged 26.—Robust and presenting excellent health in every respect.—Second confinement. Examined patient at 10 A. M. History as follows: labor commenced Sept. 4th at 10 A. M., Dr. L. as accoucheur: at 6 P. M. a healthy male child weighing seven pounds was safely delivered. After waiting a reasonable length of time the Doctor examined to ascertain in regard to placenta. He found another child presenting, vertex. Labor progressed rather slowly and being quite conservative he made no effect to hurry labor. At 12 P. M. the head was well down to perineum, when contractions ceased, and refused to respond to efforts to promote a continuance. Upon our examination the usual signs of death of the child were presented, also what appeared a normal vertex presentation. The patient showed symptoms of exhaustion, and it was decided to terminate the labor instrumentally, the quicker the better. I applied the Hodge Forceps and extracted without difficulty. As soon as the head emerged from under the pubes. I found that it was turned completely once upon its axis, the face presenting naturally to the front, otherwise the child being normal in all respects. I was greatly surprised and immediately called the other gentleman's attention, before removing forceps, to this puzzling condition of affairs; the cervical muscles were rigid and strongly resisted efforts to restore the head to its natural position. As a necessary fact the cervical vertebra were dislocated. From appearances I should presume the child had been dead from eight to ten hours. Mother recovered without a bad symptom.

* Read before the St. Louis Medical Society.

Dr. L, while not a scientific man, is a very careful accoucheur, and in conducting this case (being his own daughter) I am satisfied that he was very careful in his manipulations. He states that he only made two or three vaginal examinations from the birth of the first child until our arrival; the patient herself had undergone no violent exertion preceding or during birth.

The interest attached to this case, arises from its legal bearings, especially in suspected infanticide. Had this patient been alone and have given birth to this child in this strange condition, the question would very naturally arise, whether the condition of the infant was not due to her own actions. In this town, within a month after this case came to our notice, a man and his daughter were sentenced to the penitentiary for concealment of birth, although the stimulus of the prosecution was a supposed infanticide by the twisting of the neck of the child at the moment of its birth; while that could not be proven, the concealment of birth could, hence the prosecution under that charge. The prosecution under the charge of concealment of birth would not admit evidence that I could have given which would greatly influence a jury.

Now what produced this complete twist of the child's neck in utero?

Original Translation.

Article L.

FROM THE ITALIAN.

SOME CORRELATIONS BETWEEN CADAVERIC RIGIDITY AND THE TEMPERATURE OF THE BODY; Experimental Researches in Forensic Medicine, by Prof. Arnigo Tamassia. From the *Rivista Sperimentale di Freniatria*, Fasciolo IV. Reggio Emilia, 1885. By JOSEPH WORKMAN, M. D., of Toronto, Canada.

[CONCLUDED.]

"Now, when we balance these experimental and practical researches, but very poor deductions are afforded to us: the nexus which may exist between the temperature of the body and the phases of rigidity, almost vanishes; and we cannot avoid concurring in the words of the illustrious Professor Hermann on this subject; 'Heat, in general,' he writes, 'hastens rigidity, as its departure also hastens putrefaction. This influence, however, in so far as it concerns its commencement, is trivial, and in order to be rendered clear, further researches are needed, as, for example, bodies immersed in cold water become very precociously rigid.'

"Following, therefore, the admonition of Hermann, I tried to repeat, in part, the experiments reported by Sommer, Pickford and Krause, and to institute new ones with more systematic and rigorous characters. With this intention, I made use of higher animals—as rabbits, guinea pigs, and dogs—as I did not deem experiments on lower animals, (such as frogs) worthy of reliance. Having noted the surrounding temperature, I cut, with strong shears, the heads off the guineapigs and rabbits, and on the dogs I cut through all the anterior vessels of the neck. In all of them death was almost instantaneous.

"Next, a forelimb and the corresponding hind one of each animal was flayed and placed on a glass slab, exposed to the atmosphere, for purposes of comparison. The two limbs of the other side, also flayed, were placed on another glass slab, exposed to a different temperature. We thus were enabled to institute, almost from moment to moment, comparisons as to the commence-

ment and the successive phases of rigidifaction, between the two temperatures to which the two sets of limbs were exposed. The temperatures were maintained constant by means of a suitable stove heated by gas, or by water, or frigorific mixtures. A thermometer, graduated decimally, showed the most trivial resulting oscillations, which were instantly written down as soon as perceived. Examining them, from time to time, the resistance opposed by the articulations, and the greater compactness and torpor of the muscles, the results in the two sets of muscles were recorded in a proper register.

(The author here introduces a long numerical table, showing the observations made in 62 experiments,—25 on guineapigs, 18 on rabbits, and 19 on dogs. The table shows, in vertical columns, the figures indicating the surrounding temperature, and the time of commencement of rigidity in the fore and hind limbs, respectively. The 3 left hand columns are devoted to temperatures between 55° and 59° Fahr., the 3 right hand ones to temperatures between 14° and 167° F. as these figures would take up more space than it is advisable to devote to them, and the author's summary of results, to be given presently, will be more acceptable to the reader, we omit them).

"It may now," he continues, "be permitted to us, to draw from these figures some corollaries".

"The first fact concerns the time in which, at the mean temperature (55° to 59° F), rigidity began to appear. My data accord in the main, with the mean temperature given by writers. Hoffman says rigidity commences to invade the muscles of adults at 1 to 4 hours after death, and then to diffuse itself over the whole muscular system in 4 to 6 hours after death.

"The means obtained by me were as follow:

(TEMP. 58.1° F—).

ANIMALS.	FORE LIMBS.	HIND LIMBS.
Guinea pigs 25.	After 2 h. 36 m.	After 3 h. 55 m.
Rabbits 18.	" 2 " 44 "	" 3 " 57 "
Dogs 19.	" 3 " 16 "	" 4 " 33 "

"The more lean the animal, the earlier (at the temperature of 57.2 F.) was it taken with cadaveric rigidity; so that between the first appearance, in the guineapig, and that in the dog, there was a difference of about 40 minutes. We have also to note the

constancy of the latter inception of rigidity in the hind than in the fore limbs—in dogs 1 hour 17 minutes; guinea-pigs 1 hour 19 minutes; rabbits 1 hour 13 minutes. The law of Nysten, therefore, finds support from these facts." (Another table is now presented, showing the times of commencing rigidity under various temperatures, from 14° to 167° F. In this table the times standing against very low and very high figures, are specially noteworthy: for instance, at 14 F. the fore limb in guinea pigs began to rigidify in 6 seconds, and the hind limbs in 7 seconds after death: at 167° F. the times were 9 and 11 seconds respectively. In dogs the times were much longer—12-16 and 24-31 seconds. With increase of low, and decrease of high temperatures, there was a corresponding lengthening of the times; but from 14° up to 36° F. and from 167° down to 90° F. they were all short.)

The author continues thus: "If we dispose of the different temperatures according to the acceleration induced by them on the cadaveric rigidity, we shall have the following series:

1st.—14° Fahr.

2nd.—32° and 167°.

3rd.—35° and 140°—131° and 112°.

4th.—41° and 90°.

5th.—55°, 57° and 59°.

"These facts authorise the following corollaries:

1st. Extremely low and extremely high temperatures (14° and 167°) provoke almost instaneous cadaveric rigidity.

2nd. Temperatures of 32° to 35° and 112° to 140° also extraordinarily hasten the commencement of rigidity.

3rd. Temperatures of 41° and between 86° and 90° also hasten rigidity, and with equal energy.

4th. The greatest retardation of rigidity was shown at temperatures from 55.4° to 59°.

"These results, obtained by systematic experiments, partly confirm those of Sommer, Krause and Pickford, but especially those of the last two.

"Let it be kept in mind, for example, that Pickford, in an atmosphere varying from 112° to 144° F. found rigidity commencing in the frog in 1 to 2 minutes, and at 177° in 15 seconds. Krause observed rigidity in the cat, at 86° to 90°, after one-fourth of an hour: if we take into account the difficulty of exactly fixing the time at which rigidity commences in the different animals ex-

perimented upon, and of the deundation of the muscles, in our cases, there figures do not much differ from mine.

"But there is one fact constantly arising from my researches, on which I must insist; and that is the extreme rapidity, *with which rigiditg was determined under low temperatures.* On this point writers differ extremely; Meymott, as has been seen, says not only that rigidity is retarded at low temperatures, but even that it is prevented by such. If we reflect on the decisions on the time of death, which may be inferred from a body that has lain in the water, (which is always colder than the air) we may understand the great practical importance which the exact determination of the relation between cold and rigidity acquires. At 32°, and still more at lower temperatures, rigidity occurs almost instantaneously on immersion in water—5-6-8 seconds. Some one may here, however, object with Maschka, that in these cases we have pure and simple congelation, in which the woody hardness imparted to the textures marks the plastic compactness of the true cadaveric rigidity. It is easy, however, to reply to this objection, by observing, that in order to obtain the true ligneous congelation of the muscular textures of a limb, even that of a small animal, it is necessary to protract the time much longer than a few seconds. In fact, it was necessary, in order to reach true congelation of a limb, to carry the temperature to a point still lower, 5° F., and to maintain this for 25 to 30 minutes. Further, it was recorded, in our cases, that rigidity *commenced* as soon as the muscles acquired a certain resistance and a certain amount of volume, yet still maintaining a relative softness; whilst, cotemporarily, the other tissues, as the articular fasciæ, the aponeuroses and the connective tissue, preserved their primitive physical conditions, these are contingencies which must exclude any error whatever in the interpretation of the two phenomena.

"And just as low temperatures rapidly hasten cadaveric rigidity, so do the high. In what way can this equivalence of results, by means quite opposite, be explained? Is it by extinction of the muscular irritability, provoked by sudden transitions of temperature, and the consequent isolation and coagulation of the myosine? or are the permanence and the degrees of the posthumous irritability of the muscles quite independent of the physical and chemical mutations of the myosine? Certainly if we bear in mind how much cadaveric rigidity is accelerated in as-

suming the form of the so-called cadaveric spasm of *Dec. Bois Raganond*, when death has been preceded by a stage of intense muscular fatigue—as from being hunted, or from convulsions—when, therefore, the muscular irritability may be regarded as exhausted, or nearly so, we should infer from the analogy of the effects, that depression and elevation of the temperature act by precociously expending the irritability, and suddenly provoking isolation and coagulation of the myosine. But how next shall we explain that collapse in which the muscles of animals, killed by injections of the sulpho-cyanide of potassium, continue for some time after death, before becoming rigid? The substance being one which, according to some persons, should, by elective action, cause extinction of muscular irritability.

"There is another deduction. It was at one time asserted, that in animals perishing from violent and intense hæmorrhage, cadaveric rigidity was not manifested, or that even when it did appear, it was trivial and fleeting. In my former work, *On rigidity in its relations to the nervous system*, I demonstrated experimentally the fallacy of this opinion, proving that rigidity in such dead animals not only follows the general laws, but also that it assumes, in some, the character of cadaveric spasm. Œsterlen has recently corroborated this fact, declaring that in individuals dying from hæmorrhage, rigidity proceeds as in other bodies. The numerous observations registered in my tables, from which it is argued that in all animals, dying from hæmorrhage, cadaveric rigidity is never wanting, and which does not differ from the normal medium, as concerns the time of its first appearance, furnish a new argument for the overthrow of the erroneous old hypothesis."

Correspondence.

Article LI.

VIENNA LETTER.

Vienna, March 20th, 1885.

Comma-Bacillus.

Editor Journal:—

Permit me to send you a few words about the "comma-bacillus."

The winter of 1884–85 in Europe may fairly be said to have been in medical circles an epidemic, if not of cholera at least of bacteria. The outbreak may be said to have begun by the report of that indefatigable worker and discoverer, Dr. Robert Koch, on the discovery of the so-called cholera-bacillus, suitable ground having been prepared for its reception by his labors on the bacillus of tuberculosis, of anthrax, etc., as well as those of Pasteur. No pathological laboratory has been considered complete without the apparatus necessary for the cultivation of these minute objects, which have demanded and received an amount of attention in an inverse ratio to their size. Every teacher of pathology has been forced to inform himself about the latest methods of cultivation, for almost every student asked for instruction in that department. Nor have the researches been confined to the universities and the endowed laboratories; but in nearly every city and town have there been enthusiastic investigators who have passed many hours each day in their own laboratories among "cultures" and with the microscope.

The so-called cholera-bacillus has perhaps received more attention than any other one kind. This is commonly called the "comma-bacillus," because it generally appears, when seen in profile, in a curved form, as a segment of the arc of a circle. This was found by Dr. Koch in the intestines and in the dejecta of patients sick with cholera; first in Egypt, then in India and later in France. At the laboratory of the Gesundheitsamt in Berlin, which is furnished Dr. Koch by the German government, instructions has been given during the winter months by Dr. Koch himself and his assistants about the "comma-bacillus,"

the method of its cultivation, and its peculiar and characteristic growth on gelatine, to a great number of doctors of the German Government as well as others from neighboring European states. With very few, if any, exceptions have the bacilli in a live and growing condition been allowed to leave this laboratory. Material, however, have been furnished from other sources, chiefly from Paris, and cultures of the cholera-bacillus have been far from uncommon in most of these laboratories which have given attention to bacteriological cultervation.

The second form of "comma-bacillus" was that given us by Finkler and Prior and has generally been known by the name of the "cholera-nostra-bacillus" or "the bacillus of Finkler and Prior." This was found in the intestines and the dejecta of persons who were not suffering from cholera Asiatica and was supposed by the discoverer to be identical with the bacillus of Koch, which it does somewhat resemble in appearance at times, although in its growth it is far less constant. After examination, however, Dr. Koch pointed out distinctive differences between the two, and especially in the appearances of the growth on gelatine. Nevertheless this bacillus has also received much attention.

A third form of "comma-bacillus" has also been much studied here this winter. It has long been known that there can be found in the mouth of nearly all persons, varying quantities of a curved bacillus. This was two years ago described by Prof. W. D. Miller, an American dentist in Berlin, in connection with other bacilli of the mouth. For a long time, nearly all winter in fact, efforts were being made to secure the isolation of this bacillus by Dr. Koch and his students. Every one who had his course in the Gesundheitsamt making the attempt, as well as by many others, not only in Berlin but elsewhere. It had the characteristic of being very loth to exist alone, and in spite of all endeavors no success was attained, and it was looked upon as impossible to be isolated. Prof. Miller, however, continued his experiments and about the middle February succeeded in getting a pure culture and he soon demonstrated his triumph before one of the Berlin Medical Societies. At first it was received with some credulity and it was said that this was not the comma-bacillus of the mouth, because, on account of so many vain attempts, this could not be isolated. This, however, is poor argument to say the least. It was also said that the bacillus shown, was identical

with that of Finkler and Prior. But just as Dr. Koch showed that the "cholera-nostra-bacillus" had differences and characteristics unlike that of cholera Asiatica, so does the bacillus of Miller have characteristics distinguishing it from either or both. It should be remarked that Dr. Klien in his report of the English Cholera Commision, just mentions this comma bacillus of the mouth but he gives no evidence whatever to show that he has really isolated it.

All of these so-called "comma-bacilli" when seen except in profile, of course appear straight. They also all form the S shape and when this is carried still further, spirilli. None of them are constant and all produce different sizes and shapes according to method of cultivation, temperature, age, etc.

No words about the comma-bacilli would be complete without reference to the article by Francis Fowke, F. R. M. S. in the *British Medical Journal* for March 21st, 1885, "on the first discovery of the comma-bacillus of cholera," in which, after careful researches, he claims the priority in discovery for Drs. Brittan and Swayne of England, having found evidence in the *Providence Medical and Surgical Journal*, for 1849, as well as the *Medical Gazette* for the same year. He also reproduces some of their original illustrations. Dr. Fowke is careful to add, however:—"In laying before you some of the quotations and statements from various medical journals of that date in support of my views, I entirely disclaim all intentions of impunging the originality and independence of Dr. Koch's recent discovery and researches upon this subject."

SAMUEL NELSON.

Article LII.

Editorial Department.

LeGrand Atwood, M. D., Editor. Frank M. Rumbold, M. D., Publisher and Proprietor.

ASSOCIATE EDITORS:

H. Christopher, A. M., M. D., St. Joseph, Mo. Wm. A. Byrd, M. D., Quincy, Ill.
A. E. Prince, M. D., Jacksonville, Ill.

Original articles, correspondence, short reports of cases from private practice, solicited from all quarters.

Eastern Agents, J. H. Vail & Co., 21 Astor Place and 142 Eighth St., New York.

European Agents, Trübner & Co., 57 & 59 Ludgate Hill, London.

Terms $3.00 per annum, in advance.

EDITORIAL WITHDRAWAL.

Frank M. Rumbold, M. D.

Dear Sir

With this issue of the Journal I terminate my connection with its editorial department which for ten months has been under my control. With the hope that its usefullness may be enhanced under any new arrangement you may make, I remain

Yours Truly

LeGrand Atwood, M. D.

The foregoing letter explains itself. We are sorry that a connection which has been so pleasant has to be severed. The editorial department, while not being under any one person's charge for a number or two, will not be neglected.

Frank M. Rumbold, M. D.

Subscribers who are in arrears, who have not already received their bills, will receive the same in this No. of the Journal. Prompt remittances are desired. If any can not pay at once they are requested to notify the proprietor of the Journal when they will do so.

IMPOTENCY.

The sexual desire is under the influence of the brain which animates and controls it, arrests or increases the secretion of the testicles. Hence, fright, sudden surprise, anger, or disgust will quench the feeling almost instantaneously and render perfect erection impossible, unless in case of those beasts in human form who are so often arrested for raping little children and murdering young and virtuous women in order to indulge a most monstrous lust. No rational explanation of their conduct can be given, any more than we can understand their copulation under such circumstances. They can have no moral conciousness whatever, for they generally have ample opportunity for gratifying their passions without ruining and killing unwilling females and subjecting themselves to almost certain death.

Injuries of the head, especially to the posterior portion, frequently destroy the procreative function and annihilate all sexual desire. Many cases resulting from this cause are recorded and but few of them are amenable to treatment.

Mental exertion, when long continued, may lessen or even hold sexual desire and capacity in complete abeyance.

Strong impressions of any kind may destroy all sexual desire and arrest testicular secretion. The same thing is often caused by sudden grief, or unexpected news, good or bad, which may produce the same result. So too, coldness or indifference on the part of the female may kill all passion. Impotency is gradually induced sometimes by varicocele, because it impairs the nutrition and secreting powers of the testicles and produces atrophy of these glands, and the varicocele is no doubt produced by prolonged and excessive indulgence in sexual congress. In varicocele there is shrinking of the arteries and dilatation of the veins which morbid condition of the veins destroys the functions of the testicles. Orchitis may produce impotency when the patient has suffered from repeated attacks of it, so too may epididymitis produce temporary impotency. All chronic constitutional dis-

eases impair the functions of the testicles in proportion as the general debility increases. Consumptive patients do not have as much sexual vigor as healthy persons. Dyspepsia may occasion temporary impotency and some diuretics, as nitrate of potash and carbonate of soda. Diseases of the kidneys always diminish sexual desire.

The excessive use of tobacco is, in some persons, undoubtedly a cause of diminished sexual desire and it is not improbable that it produces a marked degree of impotency.

A physical cause of impotency may exist in incurvation of the penis; tending, during erection, completely or incompletely, towards the abdomen, the perineum or to either side, caused by exudation of plastic lymph in the cells of the corpus spongiosum or the corpora cavernosa which will prevent proper erection or intromission. Effusion into the corpus spongiosum is of the most importance, as it not only causes imperfect erection the penis being bent towards the perineum, but it also prevents complete distension of the glans and the irritation of the sensitive nerves which excites and terminates in seminal ejaculation. This obstruction in the corpus spongiosum may arise from urethral abscess which has caused obliteration of some of the cells and induration of the corpus spongiosum. The glans penis being imperfectly distended while the corpora cavernosa are filled as normal, the penis becomes curved. A permanent obstruction in the corpus spongiosum is extremely rare. Stimulating mercurial ointments or the oleate of mercury generally remedies the trouble.

Most aphrodisiacs rekindle the sexual passion by stimulating the urinary apparatus, cantharides acts this way only and is perhaps more employed than all other remedies. Aphrodisiacs are indicated and useful when erection is imperfect. Electro-Magnetism sometimes does good—the Faradic interrupted current—passed from the perineum to the glans penis for imperfect erection and from the groins along the course of the spermatic cords to the testicles when secretion is deficient.

Phosphorus, Damiana, Strychnia and other nerve stimulants and tonics are frequently found beneficial in alleviating the distressful condition when dependant upon general debility or that enervation consequent upon excessive venery.

PRACTITIONER AND PREACHER.

A CLERICAL BLUNDER.

The leading local sensation in professional circles during the past month was the extraordinary impromptu speech of the Rev. Dr. Boyd, intended, doubtless, as a reply to the address of Dr. L. Bremer, delivered at Pickwick Hall, upon the occasion of certain graduating excercises. The latter had spoken of the comparative anatomy of the Simean and human brain, with special reference to the localization of the center of speech, and directing attention to the well known difference in the cerebral convolutions of the higher apes and those of man, as accounting for the abscence of linguistic power in the one and its presence in the other, without, however, alluding to the theory of Darwin or even remotely suggesting that man is the natural growth by evolution of the chimpanzee, kolu-kamba or gorilla. Intelligent auditors thoroughly understood the learned professor and while in the enjoyment of that mental repose which naturally follows the reception of nutritious mental pabulum, were shocked and disgusted with the untimely appearance of the Rev. Dr. and his ill-considered exordium commencing, "Mr. Gorilla, Fellow Apes and brother Monkeys," and continued as an argument from biblical standpoints against the doctrine of evolution. The occasion did not call for the interruption, nor did the address of the evening demand a reply, still less such inapplicable remarks as were uttered by Dr. Boyd. Some men are nothing unless sensational, notoriety to them is as desirable as is fame to the honorable. They are quacks, whether clerical, medical or legal and next to mal-apropos exhibitions of self are most delighted with newspaper notices. Unequal to great emergencies, the clerical variety have been known to steal the utterances of men as distin-

guished as Edward Everett and publicly deliver them as original. Whether such a theft is less reprehensible than that of the sneak thief who purloins ones hat or coat is not an open question, and yet the latter goes to the work house while the former speaks to the people, at a liberal salary from the pulpit, against the sin of theft.

The fact is that the cause of religion is always injured by the efforts of clerical mountebanks who trench upon the fields of science in vain endeavors to demonstrate that doctrines founded in faith are of greater value than those evolved through scientific investigations. Efforts to tramel the search for indisputable facts by interposing the dicta of scripture, invariably lower the exhalted estimate which wise men accord revealed religion. It is far better that ministers of the gospel shall teach the doctrine of salvation, thus fulfilling a high and holy mission and relegate scientific inquiry to those who are better adapted to exploring such fields. Surely, scientists will not invade the domain of faith nor teach the people "the better way." Certainly Dr. Bremer, nor any other advanced student, will not interpose, upon any public occasion, views antagonistic to those pronounced by Dr. Boyd, or any other preacher, speaking in a sacerdotal capacity.

We will trust that the unfortunate exhibition which Dr. Boyd made of himself will not be repeated, and that the example he has set will be lost upon gentlemen of his cloth to the end that propriety shall not be shocked nor the cause of religion injured by its friends.

Translations.

Article LIII.

Excerpts from Late French Journals. By S. Pollak, M. D of St. Louis.

Translated for the Journal.

The Decrease of the Population of France, by Bochard. (*Academie de Medicine*).—According to Lagneau the population of France is unmistakedly decreasing, and forebodes a serious social danger. At the beginning of this century, the increase of the population was 6.02 in 1000; in 1879, 3.134, and now it is only 2,42; deduct from this the immigration, and count only the excess of births over the dead, it is still furtner reduced to 1.65 in 1000. At this rate, France will come to a stand-still at the advent of the 20th century.

How is it with other nations? In England there is an annual increase of 13 in 1000, and in the U. S. A. over 100 in 1000. France, which stood second in point of population among the nations of the earth, is now the fourth, and, at the present rate, it will be reduced soon to the seventh. In the sixteenth century the french population constituted the one-tenth of all Europe, now it is only one-fifteenth.

Such a decrease can only arise from two causes: either the mortality is too great, or the number of births is too small. But it is well known that the death rate in France is less than in any other country in Europe, and has been lessening since the beginning of the century, when it was 27.82 in 1000, and is now 22.34. The duration of life from being, during the french revolution, 27 years, is now 37 years. But this beautiful result has also its shady side, for it largely depends upon the number of children. In childhood, death finds a rich harvest; the smaller the number of children in any country, the greater is the ratio of longevity. Hence the decrease of french population must be due to the diminished number of births. Nearly every state surpasses France in the number of children over one-third. Many are the causes

of the diminished birth rate, they are found chiefly in the laws and customs.

The law which requires parental consent to marriage up to the age of 25, is a great bar to early disinterested marriages, and which are usually the most prolific. Many young men object to the numerous formalities, to the great cost, and to the restraints of married life, and prefer the ease of the *vie de garçau*, to the cares of the *vie de famille.*

Then the army-law, which conscripts 450,000 marriageable men, and 150,000 men and women given to religious life and sworn to celibacy. Yet in spite of all this more marriages were contracted in 1880 than 1800. But in no nation of the world is the average number of children to a family less than in France. In 1800 the average was 4.26, it is in 1880 not quite 3. It is sad to know that this limited fecundity is an optional, self imposed one. The abolition of the law of *primogeniture* is the chief excuse among the rich, they object having their estates divided and parceled out among many. But this idea seems to have found followers among the lesser proprietors, is even prevalent among the peasantry.

A curious contrast is seen in Normandy and Brittany. In the first rich province, the decrease of the population from 1870 to 1880 was 44,000; while the increase of the adjacent empoverished province of Brittany was over 50,000.

In cities, the workman cannot earn enough to provide for a large family, and the rich think it is not tony to have a large family.

If an increase of population should lead to conquests, then a decreasing population would not be so regretable, but this, as a rule, is not the case; only a strong people can command peace and live at ease, but a feeble nation fond of quiet and comfort is usually absorbed by a more active neighbour.

Not only the industrial but also social relations are disturbed by a decreasing population. The higher official positions are overcrowded, the artisan and mechanic become pretentious, demand higher wages, the manufacturer can not stand large competition, and seeks to obtain from abroad, through treaties, what he could just as well produce at home.

It is incumbent on the profession, to acquaint their clients with the dangers of an enforced sterility upon the indidividual, upon society and upon the state.

HYPODERMATIC MEDICATION. (*Le Progress Medical.*)—M. Morice looks upon the hypodermatic treatment as the method of rapidity and the method of curability. He demonstrates that the cellular tissue is the most rapid channel for medicamentous absorption. He recalls the many circumstances where the necessity of rapid therapeutic action may incontestibly accord the preference to subcutaneous injection. As a curative method, subcutaneous irritant injection may determine the degree of inflammation, as a therapeutic measure, and grade the intensity according to the indications. In a discussion the question arose, the role which pain plays as an exciting agent in injection of ether intended to reanimate dying patients.

THE THERMO-CAUTERY WITH TREATMENT OF SPONTANEOUS GANGRENE.—M. Vernenil (*Ibid*) maintains that surgery possesses in the thermo-cautery a remedy which leaves far behind the bistoury with its disastrous results in cases of idiopathic gangrene. He relates a case of a man of 54, who, after paring a corn on his foot, saw spontaneous gangrene set in. An attempt was made to circumscribe it with the thermo-cautery, but new gangrenous plaques made their appearance. The discovery was made that the patient was glycosuric and an alcoholist. M. Verneuil remarked that gangrene never advenes in the diabetic, unless they are given to alcoholism. Choparts amputation was made, with rapid recovery, and gangrene never recurred. The conclusion reached is, that spontaneous gangrene should be treated with the thermo-cantery, to the exclusion of the bistoury.

THE DANGER OF ALIMENTATION WITH THE MEAT AND MILK OF TUBERCULOUS ANIMALS. (*Congress International d'hygiène*).—M. Vallin after making a lengthy report, came to the following conclusions:

1. The tuberculosis of animals is specifically identical with the tuberculosis in man.

2. It is demonstrated that the ingestion of raw tuberculous matter is capable of generating tuberculosis.

3. It is demonstrated that subcutaneous injections, or into the peritoneum, of blood or muscular juice of phthisical animals is capable of determining tuberculosis.

4. Stomachal ingestion of raw meat of phthisical animals

can, in certain cases, transmit tuberculosis, especially abdominal tuberculosis.

5. The inoculability of tubercles is not destroyed except in a temperature notably superior to that which the central part of roasted meat attains according to general usage.

6. Milk of phthisical cows is suspicious and may transmit tuberculosis; it is especially dangerous, when tuberculosis alteration exist in the mammary glands.

7. Tuberculosed milk boiled is harmless.

8. In order to obviate the danger, the sale of meat from tuberculous animals should be prohibited, and even confiscated.

9. The eating of underdone meat should be discouraged, milk should always be boiled.

10 Rigid rules should be enforced to diminish the frequency of tuberculous animals—by careful choice of breeder and reform in stabling, complete isolation of diseased animals and disinfecting the stables.

11. Tuberculosis of horny animals should be classed among the contagious diseases of cattle, and should be subjected to isolation, to confiscation or entire destruction.

12. Insurance Societies should be encouraged to insure against seizure of tuberculous animals, so that the proprietor may be somewhat indemnified.

INTESTINAL OCCLUSION TREATED BY ELECTRICITY by Boudet, of Paris (*Congress Medical International*).—M. B. makes an exposè of his method and the excellent results achieved by it. After having demonstrated the utility of the faradic current in cases of temporary inertia of the intestines and of the abdominal covering, or in the beginning of an invagination and in volvolus, it remains powerless in cases of complete paralysis, or when there is an extensive obstacle, such as cancer, then the galvanic current will find its place. This agent constitutes the vertable excitant of the smooth muscular fibres and consequently of the intestine. Instead of contracting them locally, as is done by the faradic current, galvanization furnishes a certain quantity of energy which can be transformed into movements, especially when both the intestines and the spine are at once galvanized. The danger of application of galvanic current to the intestines is the escharification and the perforation of the intestiral tube. By B' method this danger is entirely obviated. It consists in using

water as an intestinal electrode. He made use of it in 57 cases, and only in 16 cases galvanization proved impotent; 31 cases of occlusion of the bowels, the result was satisfactory. While in cancer it is powerless to cure, it gives the patient a respite, when surgery refuses to interfere. There is only one contraindication to this method, that is cardiac weakness. Peritonitis is no contraindication, he found it also useful in saturnine constipation, or in congenital dracolysis of rectum in children.

ARTICLE LIV.

EXCERPTS FROM LATE GERMAN JOURNALS. By S. POLLAK, M. D., of St. Louis.

Translated for the JOURNAL.

IS THE EXTIRPATION OF THE THYROID GLAND PHYSIOLOGICALLY PERMISSIBLE? By Dr. G. Zeas *Langenbecks Archives.*—Experiments made on 13 dogs and cats (8 extirpations of the spleen and thyroid gland, and 5 the thyroid only) lead to the following conclusions:

1. That the thyroid gland is a bloodmaking organ, and a regulating apparatus of the cerebral circulation.

2. That in the absence of the spleen, its function can be supplemented by the thyroid gland.

3. That the spleen can assume the bloodmaking function of the thyroid, but can never become a regulator of cerebral circulation.

4. That the removal of the spleen and thyroid is fatal.

Dr. Zeas compares the results of his experiments with clinical experience, and finds them confirmed by the latter. He refers especially to the observations made by Kocher after enucleating the thyroid, causing "Cachexia strumipriva," and characterized by diminution of red blood corpuscles, vertigo, cephalalgia, spasm, paretic comprehension and facile forgetfulness, and later kretinismus, all these are symptoms of an impoverished blood and deficient cerebral circulation. Hence Zeas thinks the removal of the thyroid is physiologically not legitimate.

MASSAGE FOR THE DILATATION OF CALLOUS URETHRAL STRICTURES. by Dr. Antal. *Orvosi Hetilap—Deutche Med. Ztg.*—He has frequently resorted to it of late in many cases of callous stricture of the urethra, and in indurations of the periurethral connective tissue, in the form of rubbing and kneading daily for about 8—10 minutes. Massage of the membranous and prostatic portion must be made through the rectum. The cases he reports speak largely in favor of the plan of treatment. It facilitates the passing of the stricture, and obviates the necessity of an external urethrotomy and materially lessens the time required for dilatation. Recurrence of strictures are less frequent, for massage promotes the resorption of the periurethral induration of the connective tissue.

OPERATION FOR PARAPHIMOSIS by Prof. Zeissl in Vienna. *Med. Ztg.*—In cases of unreducible paraphimosis, the patient reposes on his back, the penis is seized with the left hand, and with a small scalpel a circular incision is made through the ulcerated skin. A second circular incision is then made ½ cm. behind the corona glandis. The two incisions are united by a longitudual one, and the intervening patch of skin is entirely removed. The bleeding is easily arrested by a button suture, unless the corpus cavernosus or art. dorsalis are wounded. Union usually by first intention, even in syphilitic cases.

IODOFORM EXANTHEMA by Prof. Neisser (*Deut. Med. Wochenschrift.*)—N. observed the occasional effect of iodoform in 8 cases; it presents the characteristics of an erythematous vesicular dermatitis. A few hours after its application, an itching, burning sensation is produced, with intense redness. Later, various sized vesicles filled with clear transparent fluid, spring up, which on being opened will form crusts and assume the characteristics of pustular circumscribed impetigenous patches; on continued application of iodoform this eruption may extend over a large surface. An idiosyncrasy against iodoform will cause none of these symptoms, it seems to be only the result of its external use.

Therapeutically N. recommends cataplasm of acetate of clay, or fomentation 2 *per cent.* carbol spiritus, and afterwards some dessicating powder.

A NEW METHOD OF TREATING CHRONIC GLAUCOMA by Johnson.

(*Deutsche Med. Ztg.*—Iridectomy is an operation which, in acute glaucom, is of greatest therapeutic importance, but the result is negative in the chronic glaucoma. He proposes to treat the chronic glaucom with a paracentesis of the vitreous. He enters the bulb with a two edged broad needle in the limbus cornea, penetrates about 1 cm. and withdraws it slowly. This main course will give exit to lymph and reduced tension in an amazing degree. This proceeding may be repeated if tension should increase again. It seems that in the escape of the fluid of the eye and diminished tension, is comprised the rational treatment of chronic glaucoma.

SPONTANEOUS EPISTAXIS by Kiesselbach (*Berlin Klin. Wochenschr.*)—He examined 20 cases of spontaneous epistaxis, and found the bleeding to emanate from the anterior lower portion of the cartilagenous septum, scarcely ever was the bleeding spot found near the upper margin of the septum cartilagineum—and in one case only, did it reach the anterior end of the middle turbinated bone. A few dark red spots are seen resembling needle punctures, from which blood would escape at the first touch with the probe; occasionally were the blood vessels enlarged, and atheromatous.

The most effective treatment consisted in the application of a pledget of absorbent cotton, which may be saturated with sesquichloride of iron; only once has the actual cautery been resorted to.

Dr. Calmette ascribes habitual epistaxis to small cavernous tumors in the nasal cavity, or to erosions—treatment as above.

A CASE OF PERIPROCTITIS WITH TYPHOID SYMPTOMS, DEATH. by Prof. Lüke (*Aerztl. Mitt.*)—A wheel of a heavy wagon having passed over the abdomen of a strong man, caused a traumatism without any apparent injury. In a fortnight he sickened with typhoid symptoms, high fever, diarrhœa followed by tenesmus, bloody pus stools, discharge of shreds of necrosed rectum, rigors, death.

Necrospy. A large opening in the posterior wall of the rectum, a fecal abscess occupying the hollow of the sacrum; small abscesses in the lung, no trace of typhus in the intestines, no necrosis or caries of the os sacrum or coccyx, no actinomycosa.

The cause of the periproctitis being doubtful; it may be

assumed that the actmomycosi-fungi found a lodgement in the folds of the rectum, caused ulceration, moved on, formed a nidus on the sacrum, inducing a phlegmonous inflammation and an abscess, which resulted in the admission of fecal matter and sloughing. None of the original fungi are found in the abscess.

AMBLYOPIA NICOTIANA. (*Med. Ztg.*)—De B' remarks on whether *amblyopia ex abuso* is caused by alcohol or tobacco. He found

1. With three—none alcoholic—smoking women characteristic symptoms, diminished central vision, central color-scotoma with normal vision.

2. In woman, amblyopia from tobacco is rarer than from alcohol.

3. Smoking on an empty stomach, in enfeeble condition from whatever cause, promotes the development of amblyopia. Dyspepsia and insomnia may be both the cause and effect of smoking.

4. Good food and a moderate use of alcohol, antagonize the effects of tobacco.

5. Amblyopia nicotiana is a functional vaso-motor disturbance and not the product of a neuritis.

MECHANICAL TREATMENT OF A CHRONIC DISTURBANCE OF THE SOUND CONVEYING APPARATUS by Lucæ (*Arch. f. Ohrhlkde.*)—This affection is well known as sclerosis of the tympamum, dry catarrh, adhesion in the tympanum, ankylosis of the ossicles, hypertrophied inflammation of the middle ear. In all such cases the air-bag was the standard remedy, it was intended to loosen by it the ligamentous apparatus of the ossicles, and to inflate the middle ear. According to Lucæ, while it doubtless will make the membrana tympani bulge out, yet the ossicles are very little, if any, moved by it. This difficulty can be met by a direct pressure upon the short handle of the malleus, which is very slightly sensitive. With a well wadded probe, he pressed upon it, with encouraging result. He follows this up with the air douche with every reason for a rapid improvement.

TREATMENT OF OTORRHŒA (*Berlin Klin. Wochenschr.*)—Bruckner recommends two mercurial preparations for combating ottorrhœa, (not dispensing with boracic acid, arg-nitr, alcohol) but to

add to them. The red precipitate is applicable only in large perforations of the membrani tympani and only after scrupulous—not dry—cleansing. But the sublimate is of great value in copious feted blenorrhœa; it is best used by instillation in an alcoholic solution (0.05—0.1: 50.0) We must be greatful for every new remedy in otorrhœa. Justly does boracic acid occupy the first rank in the therapeutics of supurative inflammation of the ear. Yet there are many cases known where its effect were only negative. Then the sublimate may be resorted to, with greater probability of a good result.

EXPLOSIVE MEDICAMENTS. (*Wiener Med. Presse.*)—Incompatibility of certain medicaments have frequently been the cause of explosion; the "*Journal de Pharmacie*" cautions against such dangerous compositions; thus, a gargarism of chlorate of potass, chloride of iron and glycerine, has exploded in the pocket 5 minutes after being prepared, causing great injuries to the bearer; also a composition of hypophosphite of calcium, chlorate potass and lactate of iron exploded, endangering life; simple trituration of hypophosphite of calcium cost the life of a young pharmaceutist.

Physicians sometimes prescribe a solution of chromic acid in glycerine, which on being agitated may cause an explosion like nitro-glycerine. A mixture of iodine and ammoniac must be cautiously handled; iodic asphyxiating gas may be generated—a fulminating substance—chlorate of potass and tannin, hydrochlorate of morphia are very explosive. One cannot be too cautious in prescribing compositions, containing easily oxidisable and reducible bodies, such as chlorates, hypophosphites, nitrates, iodine and ammoniac, chromic acid, glycerine, permanganate of calcium, etc. physicians should pay especial attention to this, lest such combinations place the lives of their patients in great jeopardy.

THE RELATION OF COLOR IN WEARING MATERIAL TO WATER AND AIR. (*Arch. f. Hyg.*)—The color exercises no influence upon hygroscopicity. After many experiments the following conclusions were reached:

1. The color has no effect upon the hygroscopic quantity of water which is being absorbed, nor upon the rapidity of absorption.

2. The evaporation of capillary water is the same in colored as in uncolored material.

3. Color exercises a considerable influence upon the permability of material of air.

ARTICLE LVI.

Department of Microscopy.

CONDUCTED BY

FRANK L. JAMES Ph. D., M. D., President St. Louis Society of Microscopists, of St. Louis.

MICROPHYTES OF THE NORMAL HUMAN SKIN.—The tendency of a certain class of investigators to elevate into pathogenic importance every form of microphyte which is found by chance to predominate in any particular pathological condition, especially in diseases of the skin, has recently received at the hands of J. Bizzozero, of Turin, a very decided set back. In a communication addressed to Virchow's *Archiven* (Vol. xcviij p. 441) this author states that he found in the normal debris of the skin—dead epithelial cells, glandular secretions etc., a large number of those microphytes which were hitherto charged with being the pathogenic cause of numerous maladies of the skin. While existing on every portion of the surface, these microphytes were most plentiful in the parts covered with hair, around the penis and scrotum, under the arm pits, and between the toes and in the deeper folds of the skin. He divides those found on the surface into three classes viz: (1) spherical cells (*saccharomyces sphaericus*) without mycelial threads; (2) oval cells (*sacch. ovalis*); and (3) micrococci and bacteria. None of these, the author declares, have the slightest pathogenic importance, although identified as the hitherto suspected cause of various diseases. On this point the author quotes the literature of the day very fully. In the doughy masses of desquamated and semi-macerated epithelium taken from between the toes, Bizzozero found vast quantities of bacteria and micrococci, which were most numerous in the outer

portions. In the deeper parts of the masses were found the higher forms of microphytes. Among them predominated long, pale, flexible threads which wound themselves into complicated knots and lay in little cell-like hollows between the masses of dead epithelial cells. These organisms, which the author calls *leptothrix epidermidis* were found not only between the toes but in the preputial smegma and in the portions of the scrotal folds exposed to the chafing of the thighs. No pathogenic importance was found to attach to these organisms.

OSMIC ACID IN HISTOLOGY.—The value of osmic acid as a 'fixer' of histological elements has not hitherto been sufficiently appreciated, either in this country nor abroad. Up to within a very short period its use has been confined to the hardening and staining of nerve and brain matter, differentiation of fat cells, etc., and in investigations of the retina. More recently it has been suggested as a most excellent medium for killing microbes and the minuter organisms generally, without distortion. In a recent lecture delivered at the Collège de France by Prof. Ranvier, he highly extols the acid for 'fixing' cellular structure for prolonged study under the microscope. In speaking of the hepatic cell, after stating that in order to understand its intimate structure it would be necessary to study it in its living state, and after pointing out the very great, almost insurmountable obstacles in the way of doing this, he says "I would have no confidence in studies carried out under such difficulties, and think that far better and more reliable results would be obtained by a resort to some method of fixation of these cells by which their interior and exterior structures may be studied at leisure. For such a purpose osmic acid has an exceptional value—a value as a fixer of histological elements which I am going to illustrate to you.

THE CORNEA.

One of the most remarkable effects of osmic acid in this capacity is illustrated by its action on the cornea of a frog. If after carefully dissecting the cornea we place it in the moist cell or chamber, with a few drops of aqueous humor, and examine it with the microscope we see scarcely anything of its structure. But if we wait a half-hour, an hour, or even a little longer, the fixed cellules, which were at first but indistinctly seen, become visible and we may follow every detail with admirable clearness. All histologists who have studied the corneal struc-

ture under these conditions have recognized the facts as stated, but none have as yet been able to give a valid explanation of them. In order that this phenomenon be produced and that the cornea shall show its fixed cells and the net work which they produce, it is indispensable that it be placed in the moist chamber and furnished with fluid enough to keep the atmosphere saturated. These conditions satisfied, the phenomenon never fails to appear at the end of from a quarter to a half-hour. If then the cornea is allowed to become dry, the cellules disappear and their contour, but a few moments ago so distinct and clear, is lost in the fundamental substance. These phenomena are essentially physical. A certain quantity of water is necessary to bring into view the cellules and the cellular net. How is it to be done? Under the influence of the fluid the cornea sustains a very appreciable increment in size. It swells, as may be ascertained by microscopic examination. The fundamental inter-fibrillary substance absorbs water; it swells and meanwhile the cellules, which have a vital resistance of their own, an organic independence in a much higher degree, (than the interfibrillary substance) resist imbibation. It is then really very simple, after all, this problem as to why the absorption of water brings the cells into view. In the normal cornea the cellules and the interfibrillary substance have the same index of refraction. It is this which causes the definition of the cells to disappear and which gives the cornea its great transparency. The imbibation of water by the one substance and its refusal by the other cause a change or difference in their indices of refraction and consequently enables their boundaries to be seen.

There is then between the cornea which has remained a little while in the moist chamber and the living cornea a very slight difference as to the imbibation of fluids by the interfibrillary substance. This difference can be fixed exactly by means of osmic acid. If a living, non modified cornea be subjected to the vapors of osmic acid there is no change of the refractive indices. If, on the contrary, a modified cornea, one that has first been subjected to the influence of moisture, be afterward subjected to the vapors of osmic acid, a permanent difference of refractive index will be established. In other words, it will be fixed by the acid, and henceforth the cells and their reticulation will remain visible. We see then that in osmic acid we have a fixing agent worthy of all confidence—a fact that I will illustrate by another striking

example. This time, by fixing—not a cellular element but a very delicate substance which may be considered as a product of intracellular or intraprotoplasmic secretion. I mean that very curious substance

ELEIDINE,

which infiltrates a certain stage of the mucous corpuscles of Malpigi called the *stratum granulosum*. It is also found, in the form of drops, in the epidermis of embryos, in the nails and hoofs of the solipeds and ruminants. If you make a section of the exterior tegument of an embryo, after hardening in alcohol, and stain it feebly with carmine or picrocarmine, you will see the granulations and drops of eleidine take on an intensely red coloration. If now acetic acid be added, even in exceedingly minute quantities, the drops of eleidine, so red and brilliant, will swell up and disappear! From this it may be seen that acetic acid has a very powerful effect on this curious substance. But osmic acid has the power of arresting this action—an exposure to its vapor even sufficing. If the object be first exposed to the actions of osmic acid, no amount of acetic acid afterward applied will cause the eleidine to swell or disappear, so powerful is the fixative principle of osmic acid on a substance so delicate! These experiences have taught me to employ it in studying the form of the

HEPATIC CELLULE.

In chosing an animal upon which to carry out my histological work, after trying quite a number of different kinds of vertebrates, I settled at length upon the domestic rat as the best, and for these reasons: it is a small animal, easily obtained in almost any numbers, and sacrificed almost as easily as frogs. The hepatic cellules of the rat are extremely neat and clear, and it is the rarest of things to find them charged with fatty granulations sufficient to impede observation. Let us then take a rat, an ordinary rat, *mus decumanus*, and cut his head off. Taking off a bit of his liver, say a tenth of an inch in diameter, we put it into one or two cubic centimeters (from 15 minims to a half dram) of a one *per cent.* solution of osmic acid and leave it there from 12 to 24 hours. After washing it thoroughly in distilled water to get rid of the excess of osmic acid, we put it on a glass slip and covering it with a drop of water proceed to disintegrate it by tearing it with needles. Since the elements have been fixed this process

is a comparatively easy one, and by this means we obtain a vast number of hepatic cells beautifully isolated, which can be mounted and examined at leisure.

DR. ROLLIN R. GREGG, the Buffalo man, who, with a 'student' microscope stand and a quarter inch objective, with no previous training in microscopy or in the natural sciences, last year undertook to overthrow the germ theory of disease and who was so unmercifully handled by the committee of the Buffalo Microscopical Society, far from being crushed by the demonstrations then made of his ridiculous ignorance, is again before the public in another attack on "bacteria." The last effort of the doctor is a "bacterial glossary" which originally appeared in the *N. Y. Medical Times* and has been extensively copied by the secular press and some few so-called medical journals. In this document the author refers all micro-biological forms—bacteria, bacilli, micrococci, spirochaetes, etc., to fibrin. Micrococci, for instance, are 'granules of fibrin', bacilli are 'rods of fibrin', schizomycetes are "rods of fibrin breaking in two", etc, all of which goes to prove, as Dr. Pelletan would say, that Dr. Rollin R. Gregg is one of those individuals so densely ignorant that he is not even aware of his ignorance and is proud of the fact. His lucubrations derive their importance simply from the fact that reputable journals publish and republish them, and silence on the part of those who know the utter worthlessness of his observations is taken for assent or inability to answer.

THE JOURNAL DE MICROGRAPHIE.—With the number for January 1885, recently at hand, the *Journal de Micrographie* enters its ninth year. Under the able editorship and management of Dr. Pelletan it has reached a very high standard of excellence and is justly regarded as one of the best journals of the sort, not merely in France, but in the whole world. Indeed it is one of the very few scientific journals that have as yet given no sign of that demoralization and deterioration which point to the decline of French ascendency in science, the evidences of which have of late been so painfully apparent to those who love France for what she has done and been. When we find the students at the great central school of the country petitioning the government that foreigners be not allowed to compete with them for academic prizes; or almost in a state of revolt at the idea of women

being allowed to walk the hospitals; or banding together by the hundred not only to insult but absolutely to assault physically, a young and defenceless girl (Miss. Van Zandt), and when we reflect that these students of to-day are to be the scientific lights of a few years hence, we must pity the country that produces them.

Apropos of these facts Dr. Pelletan announces that the governmental subscription to the *Journal* for copies furnished the public schools and libraries, to the amount of 200 francs (or $40.00) per annum had been taken away from him by the Minister of Public Instruction "for reasons," as stated by the Minister, "purely economical." Poor France! Money can be found to carry on wars on the Congo, in Madagascar, Cambodia, China, Formosa, Tonquin,—but forty dollars cannot be raised to pay for journals of microscopy for the use of the public libraries and schools!

THE SPECTROSCOPIC examination of the absorption bands of blood is much facilitated by interposing at the diaphragm of the instrument a thin lamina of gelatine colored with gum gutta, which by absorbing the rays beyond the blue green, allows only the red, orange, yellow, and green rays to be seen.

ARTICLE LVII.

Department of Dermatology and Syphilis.

CONDUCTED BY

A. H. OHMANN-DUMESNIL, A.M., M.D., Professor of Dermatology and Syphilis, St. Louis College of Physicians and Surgeons, of St. Louis.

DERMATITIS HERPETIFORMIS WITH PECULIAR GELATINOUS LESIONS.—Under this heading Dr. L. A. Duhring reports a highly interesting case in the *Medical News*. In speaking of the peculiar lesions he says:

These curious pulpy, gelatinous masses, he (the patient) states, could be picked up between the fingers, handled, and, if squeezed,

would disintegrate. No blood accompanied them, nor did the cavity which remained after the exit of the mass contain any blood, but it subsequently oozed a few drops of a yellowish fluid, of a creamy consistence. A cavity, of course, remained after the exit of these bodies, into which the tip of the index finger could be inserted; but, under a stimulating lotion of iodide of potassium, this healed over, with slight scaling, in a few days, no stain remaining. Sometimes these cavities would refill, and often with surprising rapidity, in less than ten minutes with a material similar to the first product, but not so yellow, and invariably thinner —more of the consistence of thick cream—which could be squeezed out by pressure with the blade of a knife. But not all of the lesions would refill; some would refill as often as three times, and this in from one to twelve hours. He continued to have these very singular lesions throughout the autumn and winter, one, two, three, or more making their appearance, on the average, every day. They did not come in crops, but at irregular intervals, and, as stated, seldom oftener than at the rate of one or two daily. They were at first confined to the back, but subsequently attacked all points of the surface except the face and scalp.

They disappeared gradually in the following April, and he was free from these and all other lesions throughout the summer.

VACCINIA AND VARIOLA AT THE SAME TIME IN THE SAME INDIVIDUAL.—Charles E. Rowling, Hon. Medical Officer Paramatta Hospital, New South Wales, contributes a very interesting note to the Australasian *Medical Gazette* on the above subject. A man aged 27, fearing that he might contract smallpox, asked advice respecting vaccination. He was immediately vaccinated in four places on each arm. This was successful; on the second day, however, forty-three umbilicated pustules appeared on different parts of his body. This disease ran a perfectly normal, but very mild course. Everything at first pointed to a decidedly severe attack, and a very mild one ensued. On the eighth day some perfectly clear lymph was taken from the Jennerian vesicles and a healthy child, eight months old, was vaccinated. Vaccinia and vaccinia only, was developed and ran a perfectly normal course. Thirteen others were them vaccinated, eleven of which were successful. Is any better proof required of the well known but occasionally contradicted fact, that vaccination carefully performed will result

in nothing but vaccinia? Now, did this case show in a wonderful manner the protective power of vaccinia, or did it not?

EPIDEMIC RINGWORM OF THE SCALP.—Dr. W. F. Alexander had the occasion to attend an aggravated epidemic of this disease in a large orphan asylum in New York. He details in the *Journal of Cutaneous and Venereal Diseases* the means which he employed with success. He treated about sixty patients in all and the method he used was, to have the hair closely cut or shaved on all the heads which presented scaly patches; the scalp was thoroughly cleansed, and epilation by forceps of the hairs on the spots and for a short distance around them was practiced. This area was then covered with a layer of a pigment composed of a ten *per cent.* solution of chrysarobin in traumaticin; this was renewed twice or thrice a week. The three following objects were accomplished; the isolation of the patches of diseased skin, the exclusion of oxygen from the fungus, and the direct destruction of the latter by the parasiticide. Occasional relapses did occur, but they were due to the premature suspension of the treatment. The method is a good one and to be especially recommended in those cases where a large number of patients are to be treated and but little attention can be devoted to individual cases. Besides ringworm, it is also applicable to favus and it has the advantage of greatly limiting the spread of the disease.

THE BURR AND HOOK IN LUPUS VULGARIS.—Dr. Geo. Henry Fox, has devised a novel and ingenious mode of treating some of the lesions of lupus vulgaris. He writes to the *Journal of Cutaneous and Venereal Diseases* that although excision, linear scarification, the curette and other methods are sometimes indicated, they are very often employed where they could be dispensed with. As is well known, these means are always followed by scars which disfigure to a greater or lesser extent. For the removal of very small and deep nodules the dental burr is much to be preferred to the curette. When a greater portion of the lupus tissue has been destroyed, and there is nothing remaining but small brownish-red points of a pin's head size, the hooked instrument is of service. The burr and hook are instruments well known to dentists and can be easily procured and applied. When, for instance, the lines of scarification have crossed and formed a cicatricial network with rectangular meshes, a few lupus cells

are often left in the interstices, and, multiplying, as they usually do in a short time, appear as brownish-red spots. The point of the hook is readily inserted into the dark and yielding speck, a few revolutions or half turns of the handle, held perpendicularly or at an angle with the surface of the skin, will quickly destroy the small mass of diseased cells which would otherwise serve as a starting point for a fresh growth.

SWEATING TO DEATH.—The following curious case is reproduced from an English journal in the New Orleans *Medical and Surgical Journal*: Dr Myrtle reports the case of a man, healthy and active, who, after suffering for three weeks from pains of a rheumatic character, relieved by sodium salicylate, was seized with profuse sweats, frequently of most offensive character, and lasting at times for ten hours. Atropine and ergotine both caused sudden symptoms of collapse. Arsenic was then tried, and for a time the patient improved, and the perspiration lost its fetor. The patient, however, died 121 days after he had first felt the flying pains. No necropsy could be obtained. The author regards the case as one of paresis of nerves supplying the sweat-ducts, caused by frequent exposure to cold during his employment.

CORROSIVE SUBLIMATE IN RINGWORM.—We find in the *Canada Medical Record* a note to the effect that Dr. R. W. Taylor recommends a solution of corrosive sublimate in tinct. of myrrh, four grains to the ounce, in the treatment of various forms of ringworm. Eczema marginatum and ringworm in general were readily cured by thoroughly painting, twice a day, the affected part with the parasiticide solution. He believes that the tinctures of gum-resins make excellent vehicles for various agents of skin diseases. To this latter we can fully attest as we have frequently used bichloride of mercury with success in the vegetable parasitic diseases, the vehicle employed being the tincture of benzoin. These tinctures form a sort of pellicle which not only keeps the parasiticide in close contact with the disease, but also keeps out oxygen and moisture which are so essential to the growth of these organisms.

TINEA VERSICOLOR OF THE FACE.—Dr. C. M. G. Biart reports an extremely rare case to the *Journal of Cutaneous Vene-*

real Diseases. The patient, a man aged 31, had tinea versicolor of the trunk for several years. A number of spots encircled the neck, one was under the lobe of the left ear and several on the left cheek. Across the forehead there was a brown band-like discoloration. The diagnosis of the case was rendered certain by a microscopic examination which revealed the characteristic fungus.

ANTIMONIAL WINE AND TURPENTINE IN SKIN DISEASES.—Dr. John Kent Spender writes an article which appears in the *Practitioner* in which he advocates the use of antimonial wine in comparatively small and frequent doses for the treatment of some dermatic affections. He says that this drug (the tartrate of antimony) has the power of helping to stop the evolution of the inflammatory process anywhere—equally in solid glands and over free surfaces. He has employed the remedy, he so ably advocates, in psoriasis with success and insists upon the small doses frequently administered. He finds that he gave in one case a few minims short of seven ounces of antimonial wine, equivalent to nearly fourteen grains of tartrate of antimony, in about seven weeks.

In the same journal Dr. H. Radcliffe Crocker states that he has used turpentine internally in psoriasis with good results. Over thirty cases were treated and in most of them no external treatment was used. He has also employed the same remedy in eczema, in those cases where no defect in the general health could be detected. Pityriasis rubra was distinctly improved by it and, as is well known, it is a useful remedy in purpura. He gives the following as being cases in which turpentine is contra-indicated: children under five years of age; all who have unsound kidneys or irritable bladders; most cases in which dyspepsia is present, though in some instances it can be tolerated even by them; and gouty subjects, whose powers, of elimination are seldom good.

PERIODICAL CHANGE OF THE COLOR OF THE HAIR.—Dr. C. Reinhard has published a highly interesting case in Virchow's *Archiv.* The patient, an idiot (epileptic) aged 13, has been closely observed for two years. A short time after her admission, it was noticed that her hair, which was very abundant, varied in color from time to time and changed from a light yellow to dark red and black. This phenomenon began at the tips of the hair and

was accomplished in two or three days; each color lasting about a week. These changes generally coincided with changes in her mental state, the dark being during excitation and the light during the period of stupor. These changes took place in the same hairs and were not due to the growth of new ones. The scalp was drier during the period of stupor, when the hair was light colored.

HÆMORRHAGIC ERYTHEMA DURING GONORRHŒA.—M. Feulard reports a case, in *La France Medicale*, of a patient in whom he observed a hæmorrhagic erythema. The young man had also a gonorrhœa together with arthritic symptoms, these latter affections being regarded as the cause of the peculiar erythema.

LYPHILOMA.—M. H. H. Leloir, of the Faculty of Medicine of Lille, in his first lecture on syphilis, reported in *Le Progrès Médical* says that a general division of syphilomas is to be made on a clinical and pathological basis. All the lesions may be included under the general classes: 1st, Those which undergo resolution, of which the papule is the type, and 2nd, those which do not undergo resolution, of which the gumma is the type. In regard to the polymorphism exhibited by syphilodermata, he states that this depends upon numerous causes, chief among which is the anatomical seat of the syphiloma, whether it be deep or superficial, about a gland of the skin, etc. Then again, it acts as an irritant and brings about various lesions of the epidermis.

ABORTION OF SYPHILIS.—H. Hallopeau reports in the *Le France Medicale* an attempt to abort a case of syphilis by cauterizing the indurated chancre with corrosive sublimate. There was no induration of the ganglia in the case and the cauterization was thorough. Despite all care and attempts, a syphilitic roseola made its appearance. The author still clings to the idea that there is not a general systemic infection at the time that the chancre makes its appearance and has hopes that the abortion of syphilis may be accomplished, although he acknowledges that it seems to be an established fact that excision of the indurated chancre succeeds but rarely in aborting syphilis. He thinks, however, that a better success would obtain by treating the initial lesion with a body capable of acting at the same time on the infectious material present and upon that which is being ab-

sorbed. Seeing the happy results following the local use of corrosive sublimate in malignant pustule, he applied it to the chancre with the result given above. We hope that the abortive treatment of syphilis may be found, but fear that it will not be due to the destruction of the initial lesion.

THE PIGMENTARY SYPHILIDE.—Dr. Geo. Knoche in his Vienna letter to the Kansas City *Medical Record* states, among other things, relative to cutaneous syphilis, that the so-called vitiligo syphilitica (syphilitic leucoderma) are whitish spots usually located on the neck, especially in the back of the neck. The surrounding surface appears to be more *highly pigmented* than is usually normal. Dr. R. W. Taylor (*Jour. Cue. & Ven. Dis.*) contends that such cases are really pigmentary syphilides and in an able paper, illustrated by a fine chromo-lithograph, he concludes that syphilis frequently causes hyper-pigmentation of the skin in spots, without any visible change in the inter-macular skin; second, that it causes hyper-pigmentation with co-existing leucoderma, and third, that it also causes an abnormal distribution of the amount of pigment normally present in a given portion of skin in which there is a preponderence of the leucodermatous appearances coincident with the pigment spots. The pigmentary syphilide, syphilitic vitiligo and syphilitic leucoderma are all forms of a certain chromatogenous affection peculiar to syphilis, appearing early or late in the secondary period and may exist alone or co-exist with other manifestations. It is more frequent in females and generally at the age of thirty or thereabouts.

CROTON OIL AS A PROPHYLACTIC AGAINST MARRIAGE.—The New Orleans *Medical and Surgical Journal* reproduces the following taken from the *Deutsche Med. Zeit.* As to the truth of the story, we cannot vouch for it, and like the Italian must say *si non é vero é ben trovato*: Stanislas Martin narrates the following little tale: A young man declared to his father that he loved a certain young woman, whom he had previously kept as his mistress. Expostulations, appeals, were all in vain; the young man threatened to kill himself if he could not have what he wanted. In his distress the father repaired to the family physician for advice and help. The doctor made inquiries and learned that the young woman was anything but desirable as a wife, and her only object was to make stronger the chains that bound the

rich young man to her. The doctor advised and had executed the following plan: the inner surface of the young man's night-shirt was rubbed with twenty drops of croton oil, in the neighborhood of the sexual organs and the loins. In a few days this caused an intolerable itching, then large knots formed in the skin and even fever appeared. The physician was called, and he solemnly declared, after a long and careful examination, that the young man had had carnal intercourse with a woman who was terribly syphilitic, and wound up by telling the young man that he must submit to a long tedious course of treatment. The young man submitted, and in time he was thoroughly cured of all inclination to marry his mistress.

ARTICLE LVIII.

Department of the Respiratory Organs.

CONDUCTED BY

J. C. MULHALL, M. D., Physician to the Throat and Lung Department St. Louis Medical College Dispensary.

BICHLORIDE OF MERCURY IN PHTHISIS. *Med. News.* Phil:—Dr. Kalloch reports that the use of the following prescription in 33 cases of pulmonary phthisis invariably, in any stage, produced marked improvement.

℞ Hydrarg Bichloride.....gr j
Ammonium Chloride.....℥ij ss.
Alcohol.....℥ij.
Glycerine and Water.....ad ℥iv.

Of this one teaspoonful, never more, 3 times daily after meals. The author acknowledges that he has not been able to determine the final result of the treatment.

I have had some experience with the internal antiseptic treatment of phthisis and have discovered that any antiseptic, well borne, will at once improve the symptoms. I have used iodine, the bichloride, creasote (from which I have secured the best results) and phenic acid after the Declat method. None were cured.

DEVIATED SEPTUM AND NASAL CATARRH.—At a meeting of the

St. Louis Medical Society some months ago I stated that the surgical treatment of hypertrophic nasal catarrh was of far greater value than any form of local medication. What I meant is partly illustrated by Dr. Jarvis in the *N. Y. Medical Journal* of March 14th, wherein he shows that the contact of a crooked septum with a turbinate bone opposite, is of itself a sufficient cause of chronic rhinitis. He shows that these pressure points must be removed, and perfect drainage secured, before cure can be accomplished.

Illustrations and descriptions of his instruments for intranasal operations are given, and cases cited of long standing chronic catarrh cured by operations on the crooked or thickened septum.

TRIPSIN IN DIPHTHERIA. *N. Y. M. Record.*—Dr. Chapin used it in spray through the tube after tracheotomy. After death he found that though the membrane was thick in the larynx and trachea as far down as the tube, that below this point only small shreds of membrane were found.

He advises the following to be used every 15 minutes with spray or brush.

℞ Ext. Pancreatis..... grs. xv.
Sodii Bicarb.....gr iij
Glycerine.....ʒi.
Aq Dest.....ʒvij. M.

MURIATE OF AMMONIA IN BRONCHIAL CATARRH.—According to Prof. Nothnagel this drug is indicated in the 2nd stage, if there be no fever present, while soda is to be preferred if there be much irritability present with urgent uncontrollable cough.

TRACHEOTOMY IN DIPTHERITIC CROUP. *N. Y. M. Record.*—March 21st, and 28th. Adolph Rupp—These papers, well worthy the perusal of every one, are the outcome of a paper by Dr. Winters on the subject, which has been noticed in these columns. Dr. Rupp's conclusions are.

1. The proposition "tracheotomy, of itself, performed with care involves little, if any danger to life" is true in many cases, but has turned out in the best of hands, to be immediately dangerous to the patients life.

2. Accidents, during operation, even when care is exercised, may occur and to say that these accidents are

want of care is not only to overstate circumstances, but to misstate them.

3. It prevents asphyxia when threatened asphyxia is due to laryngeal stenosis, and if the diptheritic exudative process halts, and does not implicate the bronchi, etc.

4. It prevents laborious and rapid breathing and lessens exhaustion to the extent that these symptoms had been caused by the laryngeal stenosis, now relieved by the tracheotomy, but no more than this.

5. It is the supreme resource, for relieving the suffocation due to laryngeal stenosis, but in other respects does not influence the disease. It is not wise to give the operation too much credit, for, if we do so, it may suck us into quarters for which we have no liking.

6. When the operation has been found to relieve the laryngeal stenosis, it has answered all that it is capable of doing, of course, persistence of the original disease, too long delay in its performance and neglect after, may render the operation futile, but are not to be looked upon as the causes of the failure of the operation.

7. The operation should be done in time if possible, that is, when the laryngeal stenosis has become abiding and progressive and interferes with the due function of respiration. It should not be done unneccessarily early nor too late, but it may never be too late to operate, for cases in an insensible and asphyxiated state have been brought back to life by the operation.

8. Operate knowingly and with care, and not unneccessarily hurriedly, so that when unavoidable dangers do present they may be promptly overcome, and no blame be cast upon you, or your conscientiousness and ability questioned.

9. Statistics prove nothing unless the character of the epidemic is taken into account, and many other peculiarities. Statistics taken collectively show that one patient in four or five of those complicated by laryngeal stenosis in the course of diptheria is probably saved from death. All death is "certain" and needs no qualifying epithet.

10. Patients dying after the operation would, in all probability, have died anyhow, and the best consolation in such an event is that; though life was not saved, suffering to same extent was mitigated, and the best known possible good had not been neglected in endeavoring to save the patients life.

SUBMUCOUS LARYNGEAL HÆMORRHAGE. *N. Y. M. Record.*—Dr. E. C. Morgan The paper is the report of a case of sudden extinction of voice occurring in a male opera singer, 35, in perfect health, whilst singing music which required tremendous laryngeal effort. Dr. Morgan discovered the bleeding point to be in the left false cord. No tubercular condition nor antecedents. The ecchymosis did not completely disappear for three months, quite interesting in a prognostic point of view. The case is unique. It is hard to believe than any amount of vocal strain in a healthy larynx and especially in a well-trained one, as that of an opera singer, could result in rupture of one of the vessels. I have reported such a case, but the subject was saturated with malaria, and bleed from other surfaces.

DIGITALIS IN VALVULAR DISEASES OF THE HEART. Nothnagel —In the Vienna correspondence of the *N. Y. M. Record*, the views of this eminent teacher are given, He disposes of convallaria, adonis vernalis and caffein, by saying that they will not replace digitalis. He is certainly right when he says that indiscriminate and illogical use of this drug is made, especially in America. It is given in a multitude of heart affections without any reference to the one great indication for its use (the only indication, Prof. Nothnogel says) a weak and flogging heart, no matter what the heart lesion may be. To give it simply because there is a valvular lesion, is a great mistake. Nothnagel prefers the powder or infusion—given every 3 hours for 5 or 6 days with intermissions of its administration for the same period., The first rupture of componsation is nearly always relieved by digitalis—the second also usually yields—but more slowly—while the third heart failure is often the last—the patient is waterlogged and dies.

DEFLECTED NASAL SEPTUM. *New England Med. Monthly.*—John N. Mackenzie. In certain cases of deflection of the bony septum producing contact with the opposite turbinate, it is almost an impossible matter to operate on the septum so as to straighten it. Dr. Mackenzie, of Baltimore, has in two such ceses removed the inferior turbinate, and thus cured the occluded nares.

LARYNGEAL PARALYSIS IN CONSEQUENCE OF LEAD POISONING.

Berlin Klin. Wochenschrift no 35.—Dr. Otto Seifert reports 3 such cases, in all of whom there were other signs of lead poisoning. In one, paralysis of the arytenoideus proprius. In the second, complete paralysis of the left crico-arytenoideus post. with partial paralysis of the fellow. In the third, complete laryngeal muscular paralysis with the exception of the crico-thyroids. Dr. Siefert remarks that any of the laryngeal muscles, or groups of muscles, may be affected. He believes the disease to be a peripheral neuritis and myosites.

LARYNGO-TYPHUS.—Compte Rendu de la "Societe d'Otologie et de Laryngologie.—Dr. Paul Koch. His conclusions were: Laryngo-typhus characterizes itself by specific ulceration of the same nature as occurs in the intestine. It is a genuine disease and occurs during the acute stage of the typhus fever. Perichondritis with necrosis of cartilage is the prevailing feature. Tracheotomy is indicated as soon as symptoms of laryngeal stenosis become urgent and should be performed low down so as to avoid the cricoid.

Dr. Moure of Bordeaux remarked that he knew of a case of acute œdema glottidis in typhus fever, causing death, in which post-mortem the perichondrium was found healthy.

ANASTOMOSES OF THE LARYNGEAL NERVES.—*Revue Mens. de Laryngal et de Rhinol.* March.—Dr. Mourra-Bourouillou writes that it is well known that the superior and recurrent laryngeal nerves anastomose, that the anastomosis between the œsophageal branches of the latter and the superior in the mucous membrane covering the cricoid, so long ago described by Galenus, is accurately located but that the other anastomosis is only vaguely located. He has found that after the recurrent passes over the crico-arytenoid articulation it ascends and joins the superior at the border of the external thyro-arytenoideus. The author was struck by the fact that this junction is superficial and amenable to the action of an electrode, and that in the treatment of functional aphonia, this is the point to which the electrode should be directed, instead of the vestibule or interior of the larynx as is usually done.

He therefore places the electrode at the lower border and lingual surface of the epiglottis, as near the entrance of the superior laryngeal as possible. He states that the application is thus

far more agreeable to the patient, and far more powerful in its results.

My experience in functional or hysterical aphonia is that it does not matter what part of the larynx you touch with the electrode. The cure is not in the electricity, as such—but in its psychical effect. I have restored such lost voices by touching the epiglostis with tincture of capsicum. But it may be, that in true paralysis in the larynx, that the point designated by the author, is the proper one at which to apply the electrode.

ARTICLE LIX.

Proceedings of Medical Societies.

ST. LOUIS MEDICAL SOCIETY.

Taken by the JOURNAL'S Stenographic Reporter.

Prepared by the Publication Committee of the Society.

SATURDAY, March 7th, 1885.

DR. ATWOOD, President, in the Chair.

Snow Blindness.

DR. WILLIAMS.—I have had this week two cases of what is called snow-blindness, a condition quite rare in this locality but very common in mountainous countries where the snow is very constant. The past winter there has been an unusual fall of snow and doubtless these cases had their origin in that fact. A laboring railroad man in Iowa, six weeks ago, working while the ground was covered with snow and the sun shining upon it quite brightly, noticed that his vision began to fail and diminished rapidly till within a few days when he was unable longer to labor. I found that his vision was about one-tenth, both eyes being similarly affected. The fundus of the eyes presented nothing abnormal except possibly the optic nerves were slightly redder than natural though that may have been normal with him. The only diagnosis I could make was that of snow-blindness. The question arises as to the proper treatment for snow-blindness. So far as I know, the remedy usually relied upon is strychnine, which I gave this man, beginning with 1-30th of a grain three

times a day and increasing the dose till he took 1-15th of a grain three times a day. He thought his vision improved during the first 24 hours. I saw him for two days, when he left. What I want to know is, whether there is anything better than strychnine for this condition. Its nature is not yet understood, but it is probably functional. The books say that snow blindness is a result of exhaustion of the sensibility of the retina till it ceases to respond to the ordinary stimulus of light, consequently vision is impaired. The other case occurred in a gentleman who lives here but who, some six weeks ago, was in Arkansas riding considerably in the snow. He noticed that the reflection was unpleasant to his eyes. He came home and after the last severe snow storm here he was out on the street all the next day while the sun was shining brightly. Gradually vision diminished so that in the course of a few days he was so blind that he couldn't attend to business. His vision was about one-tenth, both eyes being similarly affected. So far as the bottoms of the eyes were concerned there was nothing abnormal except perhaps a slight increased redness of both optic nerves. In this case the diagnosis of snow-blindness is not positive. The man has been a hard drinker and a persistent smoker. I suspect that the dimness of vision is largely due to poisoning from whisky and smoking, at the same time the effect of the bright light reflected from the snow may have had something to do with starting the trouble, but the diagnosis I made in his case and explained fully to him is, whisky and tobacco amaurosis or amblyopia. This suited him exactly as he had the same idea. In the latter case the use of whisky and tobacco was forbidden. He is a druggist and understands the action of medicines. I suggested that he take strychnine internally.

DR. POLLAK.—I have only had one case of snow-blindness, that was several years ago. It was in a man who had spent the winter in the arctic regions, wrecked on a whale ship, and was brought back to the United States totally blind. He was admitted to the Institution or school for the blind to learn a trade. I examined his eyes repeatedly and found hardly anything about the fundus except that the arteries of the optic papilla were rather smaller and thinner than usual, whereas the veins were engorged; he had not the least perception of light. The pupils would not respond to light but remain amblyopic. As to treatment I couldn't attempt anything. We found out he was an her-

maphrodite. We did not know that he was until the children found it out. The girls said he was a man and the boys said he was a girl and we were obliged to dismiss him. We couldn't possibly keep him in the house, as we did not know in which part of the house to keep him, and he positively refused to be examined by physicians for the purpose of determining the question of sex. He left the institution and went to Indianapolis where I understand he was run over by a train and killed. In such cases I would give strychnine.

DR. WILLIAMS.—The books barely mention the subject without suggesting anything as to treatment. So far as I know in regard to the prognosis in recent or fresh cases, it is favorable; the probability is, as I told both of these gentlemen, that they would certainly recover in the course of time, but how long it would take I could not tell. Of course, they will recover much more rapidly after the snow disappears than during the time it remains. Two years ago I had a correspondence with a lawyer in Silverton, Colorado, that being a mountainous country, who had been affected with snow-blindness and the result was he had to come down from the mountains into the valleys where there was no snow, and, as I understand, after he remained there a little time his vision returned. He was a hard drinker and smoker, but I think it was the snow that affected him and not the whisky or tobacco. The drinker and smoker will have to stop his bad habits or else there is no hope for him at all. I told him pointedly it was a question between his bad habits and vision. He tells me he has stopped the whisky entirely and is cutting down the smoking as rapidly as he can; he now smokes two cigars a day instead of fifteen.

DR. HURT.—I suggest a primitive measure of prophylaxis. It was my lot to be thrown in the mountains among hunters, trappers and savages some years ago, in a region of country where this was a common trouble, and while there were no remedies for its relief there was a remedy for the prevention of the disease which appears to have some merit, at least it had ingratiated itself into the confidence of the inhabitants of that country and they all resorted to it. That was to use a coloring matter that would darken the surface of the face surrounding the eye. The most common remedy was gunpowder or charcoal made from the willow. A few little sticks of willow were burnt into a coal or charred and then powdered very fine, it makes a very fine

charcoal soft and delicate. This was mixed with a little oil of some kind, in the absence of oleaginous substance spital was used, and then the cheek-bone and eyelids and surface of the nose opposite the eye were colored with this pigment, and that was said to have been a good prophylaxis against snow-blindness. Most of the hunters and trappers used it. I never tried it, for during my sojourn among these people I used colored glasses. Occasionally I found my eyes very susceptible to the impression of snow light, and to the present day even in our latitude I am very liable to get blind if I go out in the light of the snow.

DR. MEISENBACH.—I ask Dr. Williams if any other cause but the dazzling snow light would not produce the same change in the optic nerve, the continued glitter of light on any substance except snow?

DR. WILLIAMS.—So far as I know no bright light of any kind reflected from any other bright surface will produce this condition of snow-blindness. In Dr. Kane's Arctic Expedition it is said that the members of the expedition protected themselves against the effects of snow-blindness by using strips of wood with a small slit cut therein, so as to make each eye look through the slit and thus prevent a volume of light from getting into the eyes, the marginal light all being cut off.

DR. ATWOOD.—The examination of these opthalmoscopic cases reveals the same condition, namely, enlargement of the bloodvessels. Both the gentlemen say that the optic nerves were reddened. Dr. Pollak says the veins were enlarged. And such being the case, in addition to strychnia which is used for its influence upon the muscular cost of the bloodvessels, I suggest other remedies that would have a constringing effect upon the vessels, such as ergotine and atropine.

SATURDAY, March 14, 1885.

DR. ATWOOD, President, in the Chair.

Injury from explosion of shell.

DR. DEAN reported the case of Charles M. aged 48., laborer and married, who was admitted to the City Hospital Feb. 27th. Although a soldier serving through the war and presumably acquainted with the uncertainty attached to unexploded shells, he recklessly and thoughtlessly bored a hole in one, cut a thread therein, attached a handle thereto and dipped the missils into

a vessel of molten lead for the purpose of increasing its weight. A violent explosion ensued and a portion of the periphery of the shell was driven into the left side of his face, which was also begrimed with oxide of lead. Singularly enough, notwithstanding the severity of the injury, he retained his senses which were only slightly blunted and slowly recounted the incidents of the accident. There was no fever, temperature very little above the normal till March 11th ensueing, when it was subnormal. The face was somewhat swollen and afterward exhibited a tendency to erysipelas, but both redness and swelling disappeared.

Careful exploration of the injured face revealed the malar bone and zygoma comminuted. The floor of the orbit broken into fragments and the antrum open, admitting the finger down to the alveolar portion of the superior maxilla. The ridge of the orbit appeared to be perfect. With great difficulty the upper lid was everted, disclosing the entire abscence of the eye-ball, the palpebral conjunctiva remaining intact. The touch indicated that the roof of the orbit was *in citu* and while its anatomical concavity was well preserved it seemed to be overlaid with tissue as if nothing had occurred to mar the integrity of the bony surface or its covering. The roof of the mouth was uninjured as far back as the soft palate. The bones of the nose were in line, free from iron and he breathed readily through the nostrils. A few spicula well attached to periostium were allowed to remain. On March 11th he was improving, when his wife, with the ordinary prejudice against hospitals and fearing censure if she permitted her husband to remain in such a place, decided to remove him to his home. Accordingly, the surgeon who was selected to take charge of the case came to the hospital, completed the removal of a piece of bone found detached, and gave directions for the removal of his patient. After reaching the house he became violently delirious and unmanageable. The surgeon in charge arriving and suspecting from the sudden supervention of brain symptoms the presence of a foreign body, explored the wound and found in the roof of the orbit a hard substance which by the use of instruments and the application of great force was extracted, and with profound surprise to all proved to be a large piece of shell which had entered and turned as we turn a pessary, so as to present a concave surface simulating to the tactile sense the outline and position of the superior orbital plate, a condition of affairs only discernable through the supervention of alarming cere-

bral symtpoms, pointing to pressure or other disturbance in the immediate vicinity of the wound. The weight of the iron removed is a little over three ounces and measured two and a half inches in length by one and a half inches in width and is three-eighths of an inch in thickness.

The report of the attending surgeon is that the missile had driven a portion of the frontal bone into the skull cavity, one of its corners was located in the sphenoidal sinus, the rounded corner had destroyed the left half of the ethmoid and part of the right. The vomer and all the respiratory portion of the nasal cavity were intact. The fourth corner of the shell was lodged in the spheno-palatine foramen and inf. orb. fissure. The floor of the orbit comminuted. The foramen rotundum is now plainly seen at the bottom of the wound. The lachrymal bone as well as the nasal process of the left sup, maxillary are also comminuted. The whole of the malar bone is comminuted and some parts of it are driven into the large wing of the sphenoid. There is a communication between the spheno-palatine fossa, the orbit and the pharynx so that a view of the latter may be had through the orbit. It is evident that the presenting concave surface of the shell fragment might readily have been mistaken for the roof and rear wall of the orbit.

DR. MULHALL said that he had examined the case reported with a view to determining the relation of the post-pharyngeal cavity to the wound. An instrument introduced at the lower back part of the wound descended into the pharynx. A laryngoscopic examination revealed the probe's point at the posterior margin of the bony nares and therefore in the spheno-palatine foramen. The anterior wall of the sphenoidal fossa was removed. The Dr. thought this the only instance in which it has been possible to view the interior of the pharyngeal fossa in a living person with any probability of the patient recovering. In this case there is room for doubt as to the relation of parts on account of the amount of bone driven inwards. The interesting particular, however, is that the roof of the antrum was removed and there could be seen the whole interior and the interior of the sphenoidal sinus.

DR. DEAN asked if the base of the middle pterygoid process was removed and only the hamular process remained and was answered affirmatively.

Asiatic Cholera.

DR. A. GREEN read a paper on Asiatic Cholera. See page 283 this JOURNAL.

Commenting upon a paper read by Dr. A. Green on the etiology and treatment of cholera, Dr. Johnston said, that it was a source of regret that microscopists had discovered too much, particularly the German observers and notably the renowed Koch. He alluded to the cholera commissions of England, France and Germany, and declared that those of the last named country had published statements concerning the etiology of the disease, not only uncorroborated by further investigations but disproven by the experiments of the English and French. Klien, of the former commission, made thirteen observations of the effect of water drank from the tanks of India and demonstrably loaded with comma bacilli and found that it failed to infect. The French commisioners swallowed portions of the choleraic dejections presumably filled with comma bacilli without acquiring the disease.

DR. HUGHES read a letter received by him from an old and prominent citizen, who had closely observed incidents of the cholera invasion of 1849, and who attributed the increased virulence of the disease, at times during its prevalence, mainly to meterorological influences. Its ravages were most marked during the moist and damp weather, and it ceased suddenly to be epidemic with a change to dry and cool atmospheric conditions. Dr. Hughes, however, while admitting the reliability of the statements read, claimed that the immunity from cholera during the prevalence of more bracing and energising surroundings was simply corroboratory of the position he had taken in a paper previously read to the Society, in which it was assumed that during muggy weather enervation is the rule—that from depressing influences the nervous system of men was unable to resist contagium and *vice versa*, with a prevading cool and dry atmosphere their nervous systems responded and were proof against the assaults of the malady.

SATURDAY, March 21st, 1885.

DR. ATWOOD, President, in the Chair.

Iritis Relieved by Cholera Morbus.

DR. WILLIAMS.—I have had for two or three weeks past a case characterized by a most violent attack of syphilitic iritis.

The skin was covered with copper colored spots, leaving no question as to diagnosis. The inflammation persisted, the ordinary remedies failing to relieve it. The patient couldn't sleep, and morphine made him sick. Cocaine locally relieved the suffering for a short time, say from one to six hours. I treated him internally with the usual anti-syphilitic remedies, including mercurial inunction and used atropine locally, but the man continued to suffer. In the course of the disease, fortunately, he had a violent attack of cholera morbus, purging severely for 24 hours. The next morning the redness had about half disappeared from his eye and since then the inflammation has gradually subsided. Recently I mentioned a similar case in a woman where the iritis persisted until she had cholera morbus and was purged nearly out of the world. I mention these cases simply to prove that violent purging in acute and persistent iritis may promptly improve the condition. When I have another case of this kind where the trouble persists and will not yield to ordinary remedies I will induce an attack resembling cholera morbus by giving either croton oil, podophyllin or some other drastic purgative.

DR. WESSELER.—The late Dr. Hammer recommended large doses of sulphate of magnesia to patients who had sore eyes. They were dosed with salts every morning. We had cases of sore eyes of every description during the war and epsom salts was his standing prescription.

DR. WILLIAMS.—Mild purgatives will not answer in these cases, we must produce very violent and continued purging. Epsom salts will not do. Besides, these purgatives are indicated only in deep-seated inflammations where the choroid and iris are involved.

DR. OHMANN-DUMESNIL.—I ask Dr. Williams whether these two cases where of plastic iritis and whether they were both of the same kind?

DR. WILLIAMS.—In the case of the woman there was no specific cause for the trouble, it was what is called plastic iritis in both cases. In the man it was a well marked case of syphilitic iritis.

DR. LEE.—Lately, in distinction from the older teachings, it has been held that the iris is not muscular, but is erectile tissue; and we know that inflammation implies distention of the vessels. In iritis there is local filling of the vessels with accompanying fever. Iritis is the result of over-stimulation of the vaso-motor

nerves that supply the vessels of the iris. The severe purging defibrinates and lowers the nutrition of the blood, and produces distended blood vessels in the alimentary tract, which distention permits the particles of the nutritive part of the blood to pass through and out of the intestinal canal as cholera discharge. This excessive purgative is followed by prostration of the whole nervous system, and has its effect upon the vaso-motor nerves that supply the vessels of the iris. It is a mild form of paralysis of the vaso-motor nerves. The iris allows the muscular coats of the vessels to exercise their inherent quality of contractility, the blood is forced out and, as a consequence, the erectile tissue of the iris is permitted to draw back to its attachment upon the ciliary border, and thus we obtain what we always wish in the treatment of iritis, a dilated pupil. Upon this theory it is easy to appreciate what the doctor has said concerning the result of severe depletion by purgation, though the cure might have been reached with less suffering to the patient than by purging him "to the confines of eternity," by using those remedies which have the effect of depressing the vaso-motor nerves.

DR. WILLIAMS.—Why do you think that the tissue of the iris is erectile?

DR. LEE.—Because the more recent physiological researches demonstrate the fact. I am prepared to give my authorities for the statement if it is necessary.

DR. MEISENBACH.—I ask Dr. Williams what course of treatment he had been pursuing before the purgation took place and for how long he had been treating the patient?

DR. WILLIAMS.—I had been treating him about 2 1-2 weeks. I had six leeches applied but without effect. The statement that the iris tissue is erectile is untenable, because it is muscular tissue. It has two sets of muscles which regulate the dilatation and contraction of the pupil. The explanation the doctor has given is good enough but there is too much theory about it, the theory itself not being tenable. The pupil in this case was, from the beginning of the treatment, dilated to its fullest extent, still the inflammation persisted and wouldn't relax under quite vigorous anti-syphilitic treatment. The spots on the skin rapidly disappeared under the treatment, but when the man took this attack of cholera morbus the iritis was promptly checked, and the explantion of the fact is simply the depletion.

DR. OHMANN-DUMESNIL.—The most interesting particular in

connection with this case is that the iritis dependent upon syphilis should not yield to the usual remedies for the treatment of that disease. I have teated a number of syphilitics before the secondary symptoms appeared, but I have never had any trouble so far as iritis is concerned. As a general thing in the plastic variety the local application of belladonna together with internal treatment is sufficient to rid the patient of his local trouble in a very short time. The theory that the iritis depends upon dilatation of the vessels, can hardly be sustained as it is probably dependent upon a cellular deposit in the iris which secondarily brings about the inflammation.

DR. MEISENBACH.—Dr. Williams lays too much stress upon the patient's becoming relieved at the time the cholera morbus took place. The syphilitic iritis running a course of two weeks under anti-syphilitic treatment should show a favorable result and the happy termination claimed through cholera morbus was due to the anti-syphilitic remedies.

DR. WILLIAMS.—I am satisfied that the patients were relieved by the violent purging. Of course the persistent use of specific remedies had its effect. The gums were affected by the mercury slightly and in spite of the constitutional influence of the remedies the iritis persisted until the cholera morbus came on.

DR. HURT.—Whether the curative effect was dependent upon the depletory diarrhœa or upon counter-irritation is a question. If the depletion alone was the main factor then I do not see why bleeding would not have been quite as valuable a remedy as purging. These were cases of plastic inflammation, and it has been a question with the later writers if the blood could not be defibrinized and in that way the tendency to plastic exudation more or less checked, by abstracting blood, better than it could be done by purging, for the reason that, in depletion through the mucous membrane of the alimentary canal there is lost only the most fluid part of the blood. Counter-irritation would be more probably effectual upon the mucous membrane of the alimentary canal than upon any portion of the dermoid surface and perhaps the cure, while the counter-irritation might be the chief factor in the process, would be expedited by the depletion. But to attribute the cure to that alone would make it difficult to see why the application of leeches did not effect any good result in one of the cases reported.

Purulent Otitis Media.

DR. MEISENBACH.—I was practicing in a little country town when I was called at night, during the prevalence of a regular western blizzard, some two miles to see a patient who had been under the care of another physician; I found him in bed tossing violently and quite unrestrainable. His face was swollen and red; the swelling extending up the scalp. At first I thought it a case of erysipelas, as he had a temperature of 104°. About a week previously he had pain in the head and ear, with vertigo, and had fallen against the door in attempting to go out. This vertigo increased, delirium set in, and this was the condition in which I found him. The lobe of the right ear was excoriated. Four or five days after the vertigo, a discharge had commenced from the ear and the patient had become delirious. Not having the means at hand by which to examine the ear, I paid attention to the most urgent symptoms and applied leeches, 10 or 12, to the immediate vicinity of the affected ear. I gave fluid extract of ergot and iodide of potash to decrease the congestion. I formed an idea that it might be a deep-seated inflammation of the middle ear, a purulent otitis media. The next morning I found him better but still delirious. Throwing light into his ear I discovered a discharge passing from it. The drum had been ruptured and through this rupture there was exuding a purulent secretion; on looking into the other ear it appeared as if I were looking into a *cul de sac*; but I make out an extremely congested contour of the drum membrane. I pierced the membrane and let out a quantity of pus. I then introduced a speculum and emptied the cavity completely, ordering cleansing irrigations. Next morning he was better, rested easily and was a little more rational, although some delirium remained for two or three days. He was deaf, but after five days treatment he was able to hear the whistle of the locomotive which passed within 10 or 12 blocks of the house. The patient finally recovered, his hearing becoming better as the inflammation decreased. This was a case which, had I not been possessed of the instruments to examine the ear, would have been regarded as erysipelas. There was certainly an erysipelatous condition but inflammation of the middle ear was the starting point and erysipelas was only a secondary condition. The pus trickling over the lobe of the ear had proved an irritant, and exposure to the cold with the skin irritated had set up inflammation. I am quite certain that had the diagnosis

not been properly made the man would have died. There was no attempt at rupture of the drum head of the left ear, and if the pus had not been let out it might, by backward pressure in the semicircular canal, have penetrated the cells of the mastoid process and produced septic poisoning. I saw a similar case in a child 6 years of age suffering with slight pain in the head and ear. In inflammation of the middle ear, as in this case, the external ear is not at all sensitive to the touch, whereas in inflammation of the auditory canal the external ear cannot be manipulated. I do not say that in inflammation of the middle ear there is no pain, but it is not the painful condition that may be referred to the external ear. I found the drum head congested, bulging, perforated, with a slight discharge of blood. I used antiseptic washes of warm water and carbolic acid. I also instilled cocaine muriate to assuage pain. The first application relieved the patient but the second proved inefficacious. I call attention to these obsure cases of pain. The ear ought always to be examined, especially in children. In a paper recently read before the German physicians of this city, Dr. Griener reported a series of cases in which opening the mastoid cells in deep inflammation of the middle ear was quite successful. I think this an operation which ought to be more frequently done, because in many suppurations of the middle ear pus finds its way into the mastoid cells which possibly may prove the nucleus for chronic inflammation in that region, and if the mastoid cells are cut down upon, no harm is done, and the chances are that a great deal of good will result, It is better to err upon the side of safety, especially since we have so many means by which to combat inflammation. In a case of chronic inflammation of the middle ear I assisted Dr. Sanders in opening the mastoid cells. The operation was quickly done and the patient under careful antiseptic treatment ultimately recovered.

DR. WILLIAMS.—How do you open the cells?

DR. MEISENBACH.—I cut down upon the mastoid process and then with a drill or any suitable instrument bore through. In inflammation there, it is a very easy matter because the periosteum is soft. It is not a hard matter to open the cells.

DR. WILLIAMS.—The vertigo spoken of is not uncommon in inflammations of the throat and middle ear involving the Eustachian tube. I have seen people so dizzy from this cause that they were supposed to be drunk on the street; It is not an uncommon

thing to see persons suffering with trivial ear trouble have serious brain symptoms, but really only have obstruction of the drum cavity. Some years ago in Cincinnati, the child of a prominent family had what was supposed to be inflammation of the brain. He was a boy 3 years old. Three or four physicians were in attendance and they had about given up hope for the child's life. He was comatose, unconscious and had been for some days upon the point of death, when suddenly a discharge occurred from one of the ears and the alarming symptoms promptly disappeared. The child had only a discharge from its ear left. A German physician some years ago reported a case of an old gentleman who fell, struck his head against a curb stone, and became comatose and partially unconscious. Physicians supposed he had suffered injury of the brain and treated him accordingly without benefit for several days, when something occurred to draw attention to one of his ears, when an aurist was summonsed and found a very large plug of hard wax pressing against the membrana tympani. This was removed and the head symptoms disappeared, showing that there was no injury of the brain but that the fall had changed the position of this plug of wax so as to cause it to press firmly down upon the membrana tympani. Perforation of the mastoid cells is unnecessary. I do not think that we ought to cut into the cells upon the bare supposition that there is pus inside. If we absolutely diagnosticate pus in the mastoid cells, then it is proper.

DR. MEISENBACH.—These cases of chronic suppurative inflammation do not get well as readily as the doctor would have us suppose. I remember a child who had chronic inflammation of the middle ear and it was treated for sometime with apparent benefit; but after some months I found it in a comatose condition, The skin felt cool, the pulse was small and the parents told me that the discharge from the ear had ceased. I thought possibly pus had found its way to the brain and I gave a very bad prognosis, told them that the child would probably die. But as a *dernier resort*, I shaved the scalp and applied blistering collodion to the entire surface of the scalp and had the satisfaction, within 24 hours, of seeing the brain symptoms ameliorate. Gradually the discharge recurred and the child recovered, although it did not get well of the chronic discharge from the middle ear. It might have gotten well under the dry treatment. To cut down upon and puncture the mastoid cells I do not think unjustifiable

where there are symptoms of accumulation of pus, such as a tendency towards vertigo or coma.

DR. WILLIAMS.—In some cases of otorrhœa the bones surrounding the cavity of the drum are involved in the trouble, so that portions are denuded and particles even come away. If the bones are involved the prognosis is decidedly unfavorably, because exfoliation must occur before the discharge can be stopped. These cases are, fortunately, rare, but they do occur about as frequently as these stubborn cases of otorrhœa. Whenever the discharge is simply from an inflammation of the mucous membrane, the prognosis is decidedly favorable.

Hydrochlorate of Cocaine,

DR. LEE.—It may be interesting to relate the use to which I put cocaine, in the operation for phimosis. I used a grain of cocaine in a four *per cent.* solution. One half a grain was introduced hypodermatically through the dorsum into the cellular tissue, about midway the prepuce and the solution thrown both forward and backwark in the line of incision. Then a pledget of cotton was saturated and introduced under the prepuce. After 10 or 15 minutes, the operation was made and the patient stated that there was scarcely any pain.

DR. OHMANN-DUMESNIL.—Cases are reported in the *Cincinnati Lancet and Clinic* in which the operator did not introduce it hypodermatically but merely introduced it under the prepuce and allowed the mucous membrane to absorb it, so as to spare the patient any pain in making the preliminary incision.

DR. LOVE.—Inasmuch as cocaine is now the new and popular drug it will be recommended, prescribed and applied to almost everything. There is hardly anything that it has not been recommended for; surgically its chief advantage will be in superficial operations involving the mucous membrane where the cocaine can be absorbed. It will run the gauntlet the same as every new and popular remedy. Only a short time ago I heard it recommended as a most excellent remedy for vomiting of pregnancy. A few days afterwards a recommendation of the drug for that purpose appeared in an abstract from a German medical publication in the *Journal of the American Medical Association*. I had an acute attack of conjunctivitis in my right eye, as I feared depending upon some foreign material, septic probably, being received at about 11 o'clock in the morning, and at 2 in the afternoon inflammatory action in the eye commenced. It may have

originated in cold. The inflammation was violent, the pain very great, the discharge profuse. My friend Dr. Mudd looked at it and said that there was a very great engorgement of the vessels of the conjunctiva, that it looked as if I might also have an iritis, He instilled a few drops of a four *per cent.* solution of cocaine, waited a few minutes and I felt better. He put in three or four drops more and I felt much better and went to bed. The next day my eye was all right. I have tried it in an irritable urethra which I desired to dilate with a steel sound. I injected a four *per cent.* solution and allowed it to percolate downwards and in 10 minutes I introduced the sound without exciting a particle of pain, no spasm whatever, and I introduced a larger sound than I had previously been able to introduce, some three or four sizes larger.

DR. MEISENBACH.—How far down was the stricture?

DR. LOVE.—About the juncture of the middle and the upper third of the urethra. I ask Dr. Williams if he has used the remedy in conjunctivitis?

DR. WILLIAMS.—I have not, I have used it only to prevent pain. It has comparatively little effect upon inflammatory troubles except by relieving irritation, it does not cure inflammation except in so far as it relieves the irritation and allows the trouble to pass off spontaneously.

DR. LOVE.—I ask the doctor if he doesn't think it diminished the calibre of the capillary vessels and in that way prevent inflammation?

DR. WILLIAMS.—I have not noticed any such effect. It is antiphlogistic, because it is an anodyne, just as morphine or opium or anything that relieves pain is antiphlogistic.

SATURDAY, March 28th, 1885.

DR. ATWOOD, President, in the Chair.

Brain Symptoms from Ear Troubles.

DR. WILLIAMS.—In connection with the matter we had under consideration the other evening. Brain symptoms resulting from ear affections, I wish to add another case, which escaped my memory then, that it may go upon the records upon the heels of the other cases. A young Irishman, in Carondelet, was for several years deaf. In connection with this he was troubled with great dizziness, which was so bad, at times, that he would actually

fall, as if in epilepsy. He and his friends thought he had "fits". He came to me on account of the decided deafness. On examination I found that both ears were plugged up with wax. After I had removed these plugs of wax not only did his deafness disappear at once but also the dizziness that he had been troubled with for many years, and his epileptic symptoms never returned. This is certainly a case where very serious brain symptoms were produced by a comparatively trivial trouble of the ears. These brain symptoms are not an infrequent thing in connection with ear, and especially drum troubles. I see such cases frequently.

Diptheria and Labor.

DR. DEAN.—Four or five days ago, perhaps, a patient came under my care at the hospital, a woman suffering with diphtheria and also in labor. It was a very bad case of diphtheria. I found the head had been bearing upon the perineum, the labor pains not efficient and I made it an instrumental case simply to save the woman breath and time. The vagina was so hot as to make it uncomfortable for the hand in removing the placenta. The womb contracted nicely. I was sent for in a very few moments after I had left as it was thought that the hæmorrhage was too free, but on returning I found that the womb was still contracting very nicely; there was no more flow than might be expected. The woman was fast failing. Against my judgement in part, because I thought I was operating on a dying woman, I concluded to open the windpipe; but a few drops of blood were lost by this operation. I made the opening in the crico-thyroid membrane and inserted a small sized tube. The little breathing that had been going on seemed almost to cease, and immediately upon introducing the tube the breathing stopped, so that we had to resort to artificial respiration. The woman expired a few breath earlier than she would have done if I had not performed the operation at all. I remarked to my assistants that from the symptoms that exhibited themselves after I had made the cut I would have supposed I had driven the plug upon the trachea with the knife and that had stopped the breathing, but the posserior wall and the cords were so plainly visible that I did not think this was the case and that if I had made the opening lower down and put the tube lower I might have had better success. When I made the post-mortem I found the trachea plugged by a thick membrane that had been pressed down below where it could have been readily reached. I also made some microscopi-

cal specimens of it which showed it to be full of the bacilli or bacteria (as they are called by some) of diptheria.

DR. A. GREEN.—I would like to ask Dr. Dean if he knows in what locality the diptheritic process first commenced in that woman?

DR. DEAN.—I do not; I simply know that when she came in, the anterior and posterior pharynx were involved and it extended deeper.

DR. A. GREEN.—I suppose she died from septicemia.

DR. DEAN.—No; I don't think from septicemia alone; I suppose she died from complicated trouble.

DR. A. GREEN.—The reason I asked the question is, because I had an opportunity last year to observe in a number of cases of children that I had under treatment, that the diphtheritic process began just at the angle adjoining the lateral and posterior wall of the pharynx. In those cases that I observed, it was on the left side, and if the physician does not take the trouble to examine he will overlook it. Where the diphtheritic process commences just about the angle where the lateral and posterior walls of the pharynx come together it is very much inclined to extend down into the larynx more than when it commences in front in the tonsils and uvula. In such cases I really consider them malignant.

DR. DEAN.—Some months ago when this matter of diphtheria was under discussion I went over the ground somewhat in detail in reference to the parts affected by true diphtheritic membrane, the parts on which the microbes can be found and also the parts on which they cannot be found, unless they are there accidentally or carried there mechenically, and this mostly and near the crossing of the respiratory and of the alimentary tube. If the true diphtheritic membrane is found at this point at all it will always be found on the walls of the respiratory and not at all on the alimentary tract, and if one will study carefully the distribution of the kinds of epithelium upon those parts, he will have a guide that will enable him to know pretty accuratoly whether the white membrane is a true diphtheritic membrane or not. In this case it was almost impossible to judge, as the nose was swollen and crusts forming, etc.

DR. DORSETT.—Was there premature labor in the case or not?

DR. DEAN.—I should think from the appearance of the child that it was nearly full term. The child was dead.

DR. A. GREEN.—I do not think that we can make a proper division so as to be able to say that when the trouble is in the respiratory tract it is croup, and when in the alimentary that it is diphtheria, because sometimes we have true diphtheria commencing in the larynx or the trachea, and especially in the case Dr. Dean mentioned. If I understood him, he said the vagina was so hot that it was rather uncomfortable for the hand. This indicates that there was already septicemia present, otherwise it would not have been so hot. But as to the question whether the diphtheritic process commences in this part or that we cannot take a mirror and look into the patient's mouth and see where it commences, but in many cases if you will press down the tongue you may see it at this point and nowhere else. The only way in which to detect its presence is to look where the lateral and the posterior wall of the pharynx come together and, in those cases, if you do not take care the process will extend into the larynx.

DR. DEAN.—I would not quite wish to be understood as saying that there was no septicemia in this case. Her temperature was 37.°5 C. Of course, the death of the child would indicate that the woman was very deeply impressed with the disease. The child was not decomposed and had the appearance of being dead only a day or two.

Diphtheria.

DR. JOHNSTON.—I wish to refer to the operation of tracheotomy. The question comes up, if diphtheria is what we term constitutional, and the exudation on the trachea, on the larynx, and on the bronchial tubes is simply a local manifestation of that constitutional condition, why operate? Here you have the exudation commencing, perhaps, in the larynx, passing into the bronchial tubes, and now in such a case what good is to be gained by that operation? The patient would necessarily die, if not while you are operating in a very short time afterwards. In my humble opinion whenever you have a constitutional case of diphtheria it is sure death to the patient. I have my suspicions that the successes in this city, and of many of the surgeons in North America, depend upon the same cause that Trousseau's did; they are operating upon cases of pseudo-membranous croup and the patients get well. But when you get a true case of diphtheria with constitutional trouble, I do not believe the operation is going to cure the case and I do not believe that membranous croup and diphtheria are one and the same disease.

DR. A. GREEN.—We cannot make that distinction between diphtheria and croup it is true, but when croup has lasted for several days it is liable to take on the septicemic process. I can fully endorse the action of Dr. Dean. If I were called to see a patient and he was suffocating, I would open the windpipe in order to gain time. As soon as I had opened the trachea if I

saw that it was a case of diphtheria I would treat my patient for it. I think the treatment is proper in the majority of cases. What we call membranous-croup is not diphtheria. There are cases of actual diphtheria in the larynx, but I think most of them are merely an exudation from the pharynx into the larynx. It is impossible for me to say whether we have the actual primary diphtheritic process in the larynx or not, but, at the same time, we are sometimes called to patients and see all the symptoms of croup presenting themselves and we cannot tell whether it is real croup or not, as we cannot take a laryngeal mirror and examine the pharynx or trachea and see the membrane there.

DR. DEAN.—Diphtheria attacks mostly the respiratory portion of the pharynx, or near the crossing of the two tubes.

DR. MUDD.—I would like to ask Dr. Dean what portion of the pharynx is not respiratory?

DR. DEAN.—I believe it is a well recognized fact that the respiratory tract and alimentary tract cross each other in the region of the pharynx and that the upper portion of the pharynx belongs in no sense to the alimentary canal but does belong in every sense to the respiratory portion; and the part behind the larynx, in no sense, belongs to the respiratory tube. A proper examination of the epithelial covering of those two channels marks out distinctly the respiratory and the alimentary portion. The one having ciliated epithelium extending clear into the Eustachian tubes and into the sinuses and in other directions. The diphtheritic membrane affects especially the pavement or laminated epithelium.

DR. A. GREEN.—Rindfleisch makes a distinction of this kind. In the respiratory tract we have basement membrane and in the alimentary tract we have not, and that is the principal reason why we sometimes have actual primary diphtheria in the larynx and that is also the principal reason why the process goes in deeper and why the croupous membrane is more of a superficial one as it affects only the epithelium, the basement membrane acting as a kind of protective wall.

DR. BREMER.—Does he say that there is no basement membrane in the alimentary tract?

DR. A. GREEN.—That is what he says as well as I can remember.

DR. BREMER.—Professor Rindfleisch is mistaken, if he says that.

DR. MUDD.—That there is a different epithelial lining in different parts of the pharynx is well known, but that any part of the pharynx is not distinctly a respiratory portion of it I can hardly conceive. The isthmus of the fauces forming the posterior wall is involved more frequently, perhaps, than any other part; and the lateral walls, the posterior walls behind this are so dis-

tinctly within the respiratory tract that they constitute *the* tract. I have seen the membrane pulled from the trachea and bronchi to the fourth and fifth ramification, at the operation, and have seen the patients recover where they were undoubted cases of croupous exudation. I have seen patients recover where there could be no possibility of a doubt that the trouble was true diphtheria, beginning in the pharynx and sometimes involving the nares and extending to the larynx. Whether the process in the larynx was diphtheria or not I can only speak from the fact that it had been preceded by a diphtheritic process above. We sometimes have, accompanying the diphtheria, an exudation that does not pour into the trachea and extend to the bronchial tubes. There is an exudation in the lungs and smaller bronchi simply from the congestion which follows the labored respiration, and it is impossible to separate it from that portion which comes from the exudation of the membrane into the smaller bronchi. No one can say, seeing a patient for the first time or watching him even for days, that an operation would relieve the difficulty in the breathing. The only way to determine that is to perform the operation and take the chances. I do not believe that there is any question but what it is a proper procedure in every case where there is a marked obstruction to the respiratory movements. You can select your cases or you can go into cases, and there are many in which the friends are frightened by the sudden difficult respiratory movements where tracheotomy may be performed, but it is unjustifiable, until the obstruction becomes so great that the membrane is congested simply from the absence of air and the imperfect respiratory movements, and then every one must agree that it is proper to do the operation. I have seen many patients go beyond this, until the difficulty is so well marked that the exudation fills up the smaller bronchi, and they may get well without the operation. There is a prejudice against this operation among the laity and among men of the profession, and I know to-day some of the best physicians in the city who never have occasion for tracheotomy, who never give their patients the opportunity to get well that they would have if they used this means. This prejudice is growing less; and, I think, the surgeon who did the most to popularize it, the one who fought this prejudice most bravely and who was one of the earliest in the United States to take the proper stand in this operation, was Dr. J. T. Hodgen. There is a limit to the operation, but it is a difficult one to define and it is better to err upon the opposite side by operating sometimes in hopeless cases than to deny the opportunity which gives the patient a possibility of getting well. I think Dr. Hodgen made 14 operations before he had a recovery. It was discouraging work, the operations were made in opposition to the family physician, in opposition to the wishes of the friends and only upon the urgent appeal to them for it. Out of the 30 or 40 operations that he made I think he saved 14 lives

before he died; perhaps 17 or 18. During the latter part of the time he was making the operation his results were better because he operated at an earlier time in the disease. The statistics at the present time afford a still better *percentage* and it is because they have been able to operate at an earlier date, before the patient reaches this desperate condition.

DR. LUTZ.—I would like to ask the doctor whether he has has ever seen a patient die from the effects of an operation, or, to put it more broadly, has the operation hastened death?

DR. MUDD.—I remember one patient that I saw in consultation some 10 years ago, perhaps, in which so far as we could tell there was no history of disease preceding the laryngeal obstruction. It was an operation for œdema of the larynx supposed to have been induced by a bread-crumb getting into the larynx. Tracheotomy was performed and the patient died from the operation rather than œdema. The child seemed to be entirely comfortable after the operation, but the next day, or within 48 hours, high fever supervened and it died without any unusual inflammation of the wound but because, perhaps, the air entering the tube irritated in some way the trachea and bronchi, and capillary bronchitis was set up.

DR. HURT.—Did you extract the bread-crumb?

DR. MUDD.—No, I opened the trachea below. I made a post-mortem and looked for it but did not find it. I found nothing except mucus and this condition of œdema. In many of these cases the operation is done when the bronchial mucous membrane is congested from the difficult respiration, and at a time when it is prone to the inflammatory process. Now I suspect that sometimes the operation does not have, in this way an effect on the child in the way of producing more fever and more acute bronchial trouble, though the latter would have increased had the obstruction been allowed to remain. I do not think it is a dangerous operation, although it is an unpleasant one because it is always done under necessity for haste; there is no time to lose. Then another thing, the influence of the anæsthetic benumbs the voluntary respiratory movements which ceases to a great extent and in that way sometimes a bad effect is produced. If the patient's sensibilities are benumbed by the poison so that the anæsthetic is not to be used then this additional difficulty is avoided. I think that the effect of the chloroform should be avoided in those cases as much as possible, its use ceased as soon as possible in order that this voluntary respiration movement may be kept up as much as possible by the patient.

Cocaine.

DR. LOVE.—I have reported a case of acute conjunctivitis, from cold probably, that had been permanently relieved by the application of cocaine; and I put the question, whether it was a good remedy for inflammatory conditions when applied to the

eyes. Dr. Williams said no, that it did not affect the inflammation except in so far as to relieve pain. I stated at the time that the effect of the cocaine upon that individual case had been to produce a condition of anæmia of the conjunctiva, whereas previously there had been marked hyperæmia, catarrhal discharge, and intense pain, that the pain was permanently relieved, the discharge checked, the calibre of the vessels diminished, and a condition of anæmia, to a marked degree, induced. This one case was my only basis for my opinion. We know that it is anti-inflammatory, so as to produce the same effect which we produce when we give morphine and opium, it not only relieves the pain but it checks the inflammation. Morphine and opium are our sheet-anchor in peritonitis, where they are not only palliative but curative. I believe that the muriate of cocaine has a curative effect; and I will say that this one case is not all that I have to base my opinion upon as I have recently, during the past week, read in the *British Medical Journal* a report by Dr. L. Koenigstein, of Vienna, upon the muriate of cocaine in eye troubles. He used a one *per cent.* solution and stated that it not only produced a marked anæsthesia and analgesia but a marked anæmia. It had the effect of checking the inflammation of the conjunctiva and iris and, therefore, was curative. He stated also that for conditions accompanying trachoma, etc. it was not beneficial.

DR. WILLIAMS.—I still stick to my text, that the beneficial effect is simply because it is an anodyne. It is not an astringent, it is not a specific, it is a powerful anodyne and we all know that anodynes act antiphlogistically. Now it is quite possible that the cocaine will reduce the amount of blood in the conjunctiva temporarily, but it does not have a specfic curative effect; because as soon as the anodyne effects of the medicine pass off, and this is in comparatively a short time, the congestion returns. The day before yesterday I had a case of conjunctivitis somewhat similar to the case referred to by the doctor and I dusted boracic acid in the eye. The next morning the trouble was entirely relieved. The man thought that it was a great feat to cure such a trouble in so short a time. The truth is, that some cases of conjunctivitis will often get well in an incredibly short time, then again, other cases will persist indefinitely. There are no two of them alike and there are no two that require the same treatment. This evening I had a case of acute conjunctivitis in both eyes in which I used cocaine. I will see in the morning what effect it has had; I do not expect it to have any decided effect. In the case of acute iritis that I mentioned the other evening I used cocaine repeatedly with only temporary relief. So far as the inflammation was concerned it had no effect whatever. The doctor mentions the fact that cocaine is good in iritis, it is so because it is an anodyne; that is the only effect it has. So I stick to the text that it is good in these inflammatory affections only because it is a powerful anodyne.

DR. POLLAK.—According to my experience it is undoubtedly true that cocaine will expel the blood from the superficial blood-vessels if the conjunctiva is highly congested, in a very few minutes; in one minute, in some instances. And it not only has this effect upon the conjunctiva but I have seen it affect the Schneiderian membrane also, where the nose was frightfully red and sensitive and bled on the least touch. In iritis it is a different thing, the congestion of the conjunctiva comes from entirely different vessels, which are deep and not so easily influenced. But cocaine will certainly relieve it very quickly although the effect is temporary, consequently it is not so much an antiphlogistic; but it expels the blood from the surface.

DR. JOHNSTON.—One of the gentlemen says it acts as an anodyne. Anodynes always accompany in my mind what we term opiates. It is known that opiates cause an astringing or paralyzing of the nerve. One of the writers that I have been reading on the subject says that the effect lasts from 15 minutes to a couple of hours at the longest.

DR. LOVE.—I simply wanted to say that even though the effect produced by cocaine may be brief, the application may be repeated. It certainly produces a diminished size of the blood-vessels and so far it may have an astringent effect.

DR. POLLAK.—I would say that cocaine has been used in Philadelphia for lithotrity with perfect success in an old man 72 years of age. A four *per cent.* solution was injected into the bladder, retained for a few minutes and then the operation of crushing and removing the stone was done successfully and without pain to the patient. In regard to the danger in the use of cocaine I would say that I have used it extensively of late in the eye before and after cutting, and I have yet to see the first unpleasant symptoms whatever from it. Of course, the effect upon the accomodation lasts a little longer than was at first reported. I have seen it last 24 hours, but this is the only unpleasant effect that has come to my knowledge.

Book Reviews.

ARTICLE LX.

PRURITIC CATARRH (*Hay-Fever, Autumnal-Catarrh etc.*)

Dr. Thos. F. Rumbold of St. Louis has a small work on this complaint now in press. It will contain the Hygiene and the Medical and Surgical Treatment of this ailment. The work will be completed by the end of May next.

A THEORETICAL AND PRACTICAL TREATISE OF THE HÆMORRHOIDAL DISEASE; Giving its History, Nature, Cause, Pathology Diagnosis and Treatment. By William Bodenhamer, A. M., M. D. Illustrated by two Chromo-lithographic plates and thirty-one wood cuts. [New York: Wm Wood and Co. 1884.]

Bodenhamer's name is so conspicuously identified with the literature of rectal surgery, that anything on the subject bearing his imprint is looked upon as authoritative. The volume before us is remarkable as well for the deep learning and patient research displayed as for the lucid and explicit manner in which the pathology and treatment of the affliction, with which Jehovah threatened to smite the disobedient Israelites, is described. Bodenhamer's book will contribute much to the better understanding and more rational treatment of a disease which is of such frequent occurrence and so troublesome to both the surgeon and the patient. F. J. L.

GILL'S SANNE ON DIPHTHERIA, Croup and Tracheotomy is a large work, now in press.

It is a translation of Sanné's French work on Diphtheria in all its relations, historical, theoritical, and practical, from the earliest history of medicine to the present; with about 50 pp of notes, additions, and full surgical anatomy, by H. Z. Gill, Prof. of Operative and Clinical Surgery in the Medical Dept. of the University of Wooster at Cleveland, O. It is intended to make the work the authority on all points connected with diphtheria.

The following is from the introduction to the American edition:

"When we recall the fact that every year thousands die, in the United States, of Diphtheria, either with or without laryngeal complications, (in 1880, according to the U. S. States Census, 38,398 died of this disease, 52.32 to the thousand of all deaths in which the cause is reported,) it becomes every general practitioner to fully inform himself of the facts connected with the disease, whether involving its prevention or cure. Its total mortality is about equal to the sum of both scarlet fever and typhoid. Especially is this a disease of the northern and northwestern States. A table of the mortality from this cause, of all the larger cities for 1883 and 1884 is given in the translator's additions." The author is well known for his researches in this direction while he formerly resided in Illinois.

MICRO-CHEMISTRY OF POISONS, Including their Physiological, Pathological, and Legal Relations; with an appendix on the Detection and Microscopical Discrimination of Blood: Adapted to the use of the Medical Jurist, Physician, and General Chemist. By Theodore G. Wormley, M. D., Ph. D., LL. D.

with 96 illustrations upon steel. Second Edition. Octavo, pp. 784. Price $7.50. [Phila: J. B. Lippincott Company, 1885.]

We can give no better resumè than to quote from the preface. "The work has been thoroughly revised, and much enlarged in matter, especially by the addition of illustrative cases, largely American, and by new tests and methods of recovery of poisons from organic mixtures, and, also, by the addition of an entirely new chapter on Gelseminum poisoning, and an appendix on the Nature, Detection and Microscopic Discrimination of blood."

"Among other subjects added, might be mentioned poisoning by potassium chlorate; post-mortem Diffusion of Arsenic, Arsenic in Medicines, in Fabric, and in Glass; Drogendorff's method for the recovery of vegetable principles; Nature of Ptomaines; and the preparation, properties, and recovery of Jervine."

The illustrations on steel, drawn and executed by the Author's wife and daughter, can not be too highly praised. The tabular view of the behavior of certain alkaloids with reagents is complete.

All together this work is the best and most exhaustive of its kind published.

A HANDBOOK OF PATHOLOGICAL ANATOMY AND HISTOLOGY. With an Introductory section on Post-Mortem Examinations and the Methods of Preparing and Examining Diseased Tissues. By Francis Delafield, M. D., and T. Mitchell Prudden, M. D. Royal octavo. pp. 575 [New York: Wm. Wood & Co. 1885.]

The chapter on post-mortem examinations is exceptionally good. The subject of Methods of Preserving Pathological Specimens and Preserving them for study and that of Bacteriology might have been treated more *in extenso*. The other sections of the work *i. e.* an account of such general processes as inflammation and degeneration; a description of tumors, of the lesions of all the different parts of the body, of the general diseases, of violent deaths and of deaths from poisoning are what would be expected from the authors.

The association of Dr. Prudden in the compilation of this work has enhanced its value. All the illustrations, to the number of 146, were drawn by the authors from actual specimens, and are very clear and distinct.

CONVENIENT. RELIABLE. ACCURATE.

WM. R. WARNER & CO.'S

SOLUBLE COATED GRANULES.

PREPARED ESPECIALLY FOR PRESCRIBING.

The following list comprises formulæ of great value to the busy practitioner.

GRANULES	BOTTLE. 100	500
Acid Arsenious, 1-20, 1-30, and 1-50 gr. Medical properties.—Antiperiodic, Alterative. Dose, 1 to 2.	40	1 75
Aconitia, 1-60 gr. Med. prop.—Nerve Sedative. Dose, 1 to 2.	75	3 50
Aloin et Strychnine, Med. prop.—Tonic Laxative. Dose, 1 to 2.	60	2 75
Aloin et Strych. et Bellad. Med. prop.—Tonic, Laxative. Dose, 1 to 2. Aloin, 1 5 gr. Strychnine, 1-60 gr. Ext. Belladon. 1/8 gr.	60	2 75
Atropine, 1-100 gr. Med. prop.—Anodyne. Dose, 1 to 2.	75	3 50
Atropinæ Sulph., 1 60 gr. Med. prop.—Anodyne. Dose, 1 to 2.	75	3 50
Caulophyllin, 1-10 gr. Med. prop.—Emmenagogue. Dose, 1 to 4.	40	1 75
Codeia, ¼ gr. Med. prop.—Anodyne, replacing Morphia without the usual disagreeable after-effects produced by the latter.	1 25	6 00
Corrosive Sublimate, 1-12, 1-20, 1-40 and 1-100 gr. Med. prop.—Mercurial Alterative. Dose, 1 to 2.	40	1 75
Digitalin, 1-60 gr. Med. prop.—Arterial Sedative. Dose, 1 to 2.	75	3 50
Elaterium, (Clutterbuck's) 1-10 gr Med. prop.—Diuretic, Hydragogue Cathartic. Dose, 1 to 2.	95	4 50
Ext. Belladonna, (English), ¼ gr. Med. prop.—Anodyne. Dose, 1 to 2.	40	1 75
Ext. Ignatia Amara, ½ gr. Med. prop.—Nerve Sedative. Dose, 1 to 2.	50	2 25
Ext. Cannabis Indica, ¼ gr. Med. prop.—Anodyne. Dose, 1 to 4.	60	2 75
Ext. Hyoscyam. (English), ¼ gr. Med. prop.—Nerve Stimulant. Dose, 1 to 3.	40	1 75

GRANULES	BOTTLE. 100	500
Ext. Nuc. Vomicæ, ¼ and ½ gr. Med. prop.—Nerve Stimulant. Dose, 1 to 3.	40	1 75
Gelsemin, ¼ gr. Med. prop.—Emetic, Diuretic, Cathartic. Dose, 1 to 2.	75	3 50
Hyoscyamia, 1-100 gr. (Crystals Pure Alkaloid.) Med. prop.—Anodyne, Soporific.	3 00	14 75
Leptandrin, ¼ gr. Med. prop.—Cathartic. Dose, 1 to 4.	40	1 75
Mercury Prot. Iodid., ¼ gr. Med. prop.—Alterative. Dose, 1 to 4.	40	1 75
Mercury Prot. Iodid., ½ gr. Med. prop.—Alterative. Dose, 1 to 2.	50	2 25
Mercury Prot. Iodid., 1-8 gr. Med. prop.—Alterative. Dose, 2 to 4.	40	1 75
Mercury Iodide Red., 1-16 gr. Med. prop.—Alterative. Dose, 1 to 8.	40	1 75
Morphinæ Sulph., 1-20 gr. Med. prop.—Anodyne.	40	1 75
Morphinæ Sulph., 1-10 gr. Med. prop.—Anodyne. Dose, 1 to 2.	50	2 25
Morphinæ Sulph., 1-8 gr. Med. prop.—Anodyne. Dose, 1 to 2.	60	2 75
Morphinæ Sulph., ¼ gr. Med. prop.—Anodyne. Dose, 1 to 2.	90	4 25
Podophyllin, 1-10 gr. Med. prop.—Cathartic. Dose, 1 to 4.	40	1 75
Podophyllin Comp., Med. prop.—Cathartic and Tonic. Dose, 1 to 2. Podophyllin, ½ gr. Ext. Hyoscyami, ½ gr. Ext. Nuc. Vomicæ, 1-16 gr.	75	3 50
Strychnine, 1-16, 1-20, 1-30, 1-32, 1-40 and 1-60 gr. Med. prop.—Nerve Stimulant, Tonic. Dose, 1 to 3.	40	1 75
Strychninæ Sulph., 1-32 gr. Med. prop.—Tonic. Dose, 1 to 2.	40	1 75
Veratrinæ Sulph., 1-12 gr. Med. prop.—Powerful Topical Excitant. Dose, 1.	50	2 25
Zinc Phosphide, 1-6 and ¼ gr. Med. prop.—Tonic. Dose, 1 to 3.	75	3 50

☞ **Please specify Warner & Co.'s when ordering or prescribing.** ☜
Granules sent by mail on receipt of price.

WILLIAM R. WARNER & CO. Chemists,

DUFFY'S PURE Malt Whiskey.

Pure unadulterated and **absolutely Free** from **Fusel Oil**, is the only Whiskey that can be safely recommended by the **Medical Fraternity** to their patients; it has been endorsed by eminent Physicians and Chemists in all parts of the country. In all cases of Pneumonia, Diphtheria, Consumption, Malaria, Hemorrages, all Pulmonary complaints, low Fevers, **Dyspepsia** and **Indigestion**, it is highly recommended. In diseases where any stimulant is required, it is a valuable aid on account of its **Absolute Purity**. We are the only concern in the United States who are bottling and selling to the **Medical** Profession an absolutely **Pure Malt Whiskey.**

Gentelmen.—I take pleasure in testifying that I have made an analysis of your Pure Malt Whiskey, which gave a very gratifying result. Your Malt Whiskey, is entirely free from fusel oil or any of those similarly obnoxious alcohols which are so often found in Whiskeys. Therefore it can be recommended as extremely fit for medical purposes.

Dr. M. E. ARENDT,
Analytical and Consulting Chemist, Buffalo, N Y

STAPLETON, RICHMOND Co., N. Y.,
April 23, 1884,

Gentelmen.—When I prescribe an alcoholic stimulant to sick and convalescent people, I order your famous Malt Whiskey in preference to any other liquor, for the reason that I know it to be wholesome, clean and unadulterated. I confidently recommend it to the Medical Profession at large, satisfied that it will meet with the approval of the profession in every particular. Yours Truly,

JAMES J. O'DEA, M. D.

RICHMOND, VA., Oct. 21, 1884.

Gentleman.—Your sample of Whiskey came duly to hand, and its contents tested. I shall prescribe it whenever I consider that stimulant is required.

J. N. RICHARDS, M. D., 7 N. 6th St.

Gentleman.—Since the introduction of your Whiskey in our city, I use no other, for the reason that I know it to be pure and unadulterated. What I employ with so much success in my own practice I can, whithout hesitation, recommend.

JAMES E WHITEFORD M. D.,
195 *Aisquith St., Baltimore, Md.*

BALTIMORD. MD., Oct, 2. 1884

Gentleman.-I have had a careful analysis made of a sample of your Malt Whiskey, as requested, and find it remarkably free from fusel oil and other odjectionable matterials so often found in the whiskeys of the present day.

Its flavor is quite pleasant and agreeable to both taste and smell, and it is, therefore, well suited to all cases that require the use of an alcoholic stimulant.

HARVEY L. BYRD, M. D.,
President of the Faculty, and Professor of the Baltimore Medical College.

ROCHESTER, N. Y. Oct. 3, 1884.

Dear Sirs.—I have frequently prescribed your Malt Whiskey in my practice here; I consider it a very superior and reliable article, and can heartily recommend it in low states, in fevers, acute inflammations, and in depressing maladies generally, also as a tonic in feeble digestion and convalescence from acute diseases. when an alcoholic stimulant is indicated, and especially in Phthisis Pulmonalis.

FRED. H. SAWERS, M. D.
S. R. C. P. Lond., etc.

KENTUCKY STATE COLLEGE.
LEXINGTON, KY., Mar, 15, 1885.

I hereby certify that I have made analysis of DUFFY'S Malt Whiskey, and found it to be absolutly pure, not containing a trace of insel oil, or any other deletorious ingredient. It is peculiarly fitted for medicinal or any other purpose where a carefully prepared and unadulterated whiskey is desired.

ALBERT E. MENKE, D Sc., F.C.S., F.I.C.,
Professor of Organic Chemistry, in the Kentucky State College, late Assistant Chemist, Department of Agriculture, Washington, D. C.

RETAIL PRICE $1.00 PER QUART BOTTLE.

TO THE PROFESSION OR DRUG TRADE, $9.00 PER DOZEN, NET.

To any Physician writing to us, mentioning this Journal, we will send a *quart bottle* as a sample, for *seventy-five cents*, the same neatly packed in a wooden case, without mark. Address,

The Duffy Malt Whiskey Co.

53 South Street, Baltimore, Md.

SOLUBLE HYPERDERMATIC TABLETS.

These Tablets are readily soluble in ten minims of warm water.
They are combined with an unobjectionable base, do not cause abscesses, and may be administered by the stomach as well as hypodermatically.
They possess the advantages of accuracy of dose and perfect preservation of the drug.

TABLET TRITURATES.

Prepared according to Dr ROBERT M. FULLER'S Method.
(See MEDICAL RECORD, MARCH 9, 1878, and March 25, 1882.)
An easy, economical, and accurate method of dispensing medicines in a compact and palatable form.
Send for Price List.

MENSMAN'S
PEPTONIZED BEEF TONIC.

THE BEST THREE TONICS OF THE PHARMACŒPIA:
IRON, PHOSPHORUS AND CALISYA.

We call the attention of the Profession to our preparation of the above inestimable Tonics, as combined in our elegant and palatable **Ferro-Phosphorated Elixir of Calisaya Bark**, a combination of the Pyrophosphate of Iron and Calisaya never before attained, in which the nauseous inkiness of the Iron and astringency of the Calisaya are overcome, without any injury to their active tonic principles, and blended into a beautiful Amber-colored Cordial, delicious to the taste and acceptable to the most delicate stomach. This preparation is made directly from the **ROYAL CALISAYA BARK**, not from **ITS ALKALOIDS OR THEIR SALTS** being unlike other preparations called "Elixir of Calisaya and Iron," which are simply an **Elixir of Quinine and Iron.** Our Elixir can be depended upon as being true Elixir of Calisaya Bark with Iron. Each dessert-spoonful contains seven and a half grains Royal Calisaya Bark and two grains Pyrophosphate of Iron.

Purest Cod-Liver Oil in the World,

Manufactured on the Sea-Shore from Fresh and Selected Livers.

The universal demand for Cod-Liver Oil that can be depended upon as strictly pure and scientifically prepared having been long felt by the Medical Profession, we were induced to undertake its manufacture at the fishing stations, were the fish are brought to land every few hours, and the Livers consequently are in great perfection.

This Oil is manufactured by us on the sea-shore, with the greatest care, from fresh, healthy Livers, of the Cod only, without the aid of any chemicals, by the simplest possible process and lowest temperature at which the Oil can be seperated from the cells of the Livers. It is nearly devoid of color, odor, and flavor—having a bland, fish like, and, to most persons, not unpleasant taste. It is so sweet and pure that it can be retained by the stomach when other kinds fail, and patients soon become fond of it.

The secret of making good Cod-Liver Oil lies in the proper application of the proper degree of heat: too much or too little will seriously injure the quality. Great attention to cleanliness is absolutely necessary to produce sweet Cod-Liver Oil. The rancid Oil found in the market is the make of manufactures who are careless about these matters.

Prof. PARKER, of New York, says: "I have tried almost every other manufacturer's Oil, and give yours the decided preference."

Prof. HAYS, State Assayer of Massachusetts, after a full analysis of it says "It is the best for foregin or domestic use

After years of experimenting, the Medical Profession of Europe and America, who have studied the effects of different Cod-Liver Oil, have unanimously decided the light straw-colored Cod-Liver Oil to be far superior to any of the brown Oil.

SURGICAL INSTRUMENT DEPARTMENT.

Under the direct and personal supervision of **W. F. FORD**, Instrument Maker to St. Luke's Mt. Signal, New York State Woman's Hospitals, Bellevue, and all the other New York Hospitals.
MANUFACTURERS, IMPORTERS, WHOLESALE AND RETAIL DEALERS IN
Surgical Dental, Orthopædic Instruments, Catheters, Trusses, Supporters, Silk stockings. Ear Trumpets, Splints, Anatomical Preparations, Local Anæsthesia Apparatus, Laryngoscopes, Ophthalmoscopes, Hypodermic Syringes, Axilla Thermometers, etc., etc.

☞Special attention given to the manufacture of Instruments to *order*, in exact accordance with patterns furnished by surgeons and Physicians.

CAZWELL, HAZARD & CO.,
Family and Manufacturing Chemists., New York.

"These plates are a wonderful success."—J. C. WHITE, M. D., Prof. Dermatology, Harvard University.

48 Quarto Plates, (60 Cases from Life,)Colored by Hand, with descriptive text.

By DR. G. H. FOX, Clinical Professor Diseases of the Skin, College of Physicians and Sugeons, N. Y,

This ATLAS OF SKIN DISEASES is the labor of years, and in its preparation the author has not only selected from thousands of cases under his charge in the New York Dispensary, but has had access to the Bellevue and Charity Hospital collection of several thousand negatives, taken from patients in various hospitals and private practice.

This series of plates are produced by the Artotype process, which not only possesses the sharpness of detail, and brilliancy of photographs, but, unlike the latter, will not fade through age or exposure of light. They are carefully colorod by hand and more accurately represent disease than any lithographs or colored photographs which have ever been offered to the profession. 100 pages of Text, with treatment accompany the plates.

In 12 Numbers, $2 Each, Complete in One Vol., Half Roan, $26, 75; Half Turkey Morocco, $28,00·

Sold only to subscribers. Send orders to

E. B TREAT, Publisher, 757 BROADWAY, NEW YORK.

PEPSIN.

E. SCHEFFER, LOUISVILLE, KY.,

MANUFACTURES BY HIS IMPROVED METHOD

SACCARATED PEPSIN. Which has proven its superiority over other Pepsins by its stability, uniformity and agreeable taste. In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia which is as follows: One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

DRY PEPSIN CONCENTRATED, Particularly recommended to manufactures, Possesses 8 times the strength of the above.

PREMIUMS were awarded to the above preparations at the International Exhibition Vienna, in 1873 and the Centennial Exposition in Philadelphia.

DO YOU KNOW

THAT

LORILLARD'S CLIMAX PLUG TOBACCO

with Red Tin Tag; **Rose Leaf** Fine Cut Chewing; **Navy Clippings,** and Black, Brown and Yellow **Snuffs** are the best and cheapest, quality considered.

PEACOCK'S FUGUS MARINA

(ANTIDOTE TO MALARIA.)

Indispensable in the treatment of Malarial Fevers, Dumb Chills, Etc.

DIRECTIONS.—*To eradicate the Malaria* from the system, *one teaspoonful, IN WATER,* three times a day. For Intermittent, Remittent, and other Fevers, *five to twenty drops in water,* every *two* or *four* hours. As a prophylactic against Malaria, *one teaspoonful twice a day.* Samples FREE to Physicians.

PEACOCK CHEMICAL CO., St. Louis.

PEACOCK'S BROMIDES

(CHEMICALLY PURE.)

Devoid of the Unpleasant Effects of the Common Drug.

Each *fluid* drachm contains *FIFTEEN* grains of the *COMBINED* C. P. Bromides of Potassium, Sodium, Calcium, Ammonium and Lithium.

USES.—Epilepsy, Spinal and Uterine Congestions, Congestive Headache, Cerebral Apoplexy, Enuresis, Dentition, Mania, Meningitis, Eclampsia, etc.

DOSE.—One to two FLUID drachms, in water, three times a day. Samples FREE to Physicians.

PEACOCK CHEMICAL CO., St. Louis.

MILK-MAID BRAND.

TRADE MARK.

ANGLO-SWISS MILK FOOD.

MADE AT CHAM, SWITZERLAND, BY THE ANGLO-SWISS COND. MILK CO.

Prescribed by leading practitioners, and used in prominent institutions throughout the Country.

CHEMICAL ANALYSIS.

	per ct.
Moisture	5 to 6"
Nitrogenous matter [Nitr., 2.25 to 2.35],	14 5"15"
Carbo-hydrates, soluble in water	54 "55"
Carbo-hydrates, insoluble in water	15 "16"
Fat	4 "5"
Ash, [inclusive of 0.6 Phosphoric Acid]	2"2.5"

"The proportion of nitrogenous matter or plastic aliments to carbo-hydrates or respiratory constituents in mother's milk is 1 : 4.5, and in this food the proportion is practically the same, namely, 1 : 5.7. The fat, as a respiratory substance is here reduced to the equivalent of starch.

"My analysis perfectly agrees with the analysis given on their labels, and bears witness to the excellent and rational manner in which this food is compounded.—Dr. E. GEISSLER, Dresden, April 10, 1883.

I have used Anglo-Swiss Milk Food in my practice, and commend it with confidence to those who may need it for infants or invalids. The introduction of Anglo-Swiss Milk Food into America is a great blessing to sick children, weary mothers, and almost discouraged physicians, for medicine will not take the place of food."—E. A. JENNINGS, M. D., Provident Dispensary, 62 W. 14th St., N. Y.

"Used in New York Infant Asylum."—J. LEWIS SMITH, M. D.

"Has yielded most favorable results."—J. C. GUERNSEY, M. D., Philadelphia.

"The diarrhœa had been persistent for four months in spite of the use of other foods. After using two days the evacuations became normal and the puny child is now plump and healthy." GEO. M. OCKFORD, M. D., Vincennes, Ind.

"Used in our Sea-Side Nursery. It nourishes and strengthens every child to whom it is given."—JOHN W. KRAMER, M. D., Master of St. John's Guild.

"Our little ones love it. It regulates and strengthens the bowels."—SISTERS OF CHARITY, St. Vincent's Home, Philadelphia.

"We find that it agrees with each case."—M. SPENCER, Matron Philadelphia Infant's Home.

Anglo-Swiss Cond. Milk Co., 86 Hudson St., N. Y. P. O. Box 3773.

SOLD BY DRUGGISTS GENERALLY.

SAVORY & MOORE, beg to call the attention of the Profession to some of their Special Preparations, the purity and uniform strength of which are Guaranteed.

PANCREATIC EMULSION

Prepared in accordance with the direction of the Physician who introduced this purely

MEDICINAL FOOD FOR CONSUMPTION AND WASTING DISEASES.

Pancreatic Emulsion will always take Precedence of Cod Liver Oil by reason of its introducing the STABLE SOLID FATS INTO THE SYSTEM instead of the evanescent fluid fats or oils.

Neither Cod Liver Oil nor EMULSIONS OF COD LIVER OIL can supply the kind of fat necessary for sound and vigorous human life. In addition to this all the Oily Emulsions are liable to rancidity, and most of them are highly objectionable in consequence of the SAPONIFICATION and ULTIMATE PUTREFACTION, produced by the chemical agents used instead of Pancreatic Juice.

Pancreatic Emulsion (properly so-called), is the NECESSARY FOOD FOR THE CONSUMPTIVE, and the most reliable form of nutriment for counteracting the tendency to Phthisis and other wasting diseases. It presents to the lacteals fat in essentially the same condition for assimilation and absorption as in a vigorous human frame, and THE AGENT of the important change is THE NATURAL SECRETION of the PANCREAS.

Pancreatic Emulsion may therefore be regarded as Chyle obtained by nature's own process. In certain cases both Cod Liver Oil and Pancreatic Emulsion are required—one to supply the blood with oil or liquid fat, the other with the more stable solid fats, but it cannot be to strongly urged that both PANCREATIC EMULSION and Cod Liver Oil are *not to be regarded as Medicine, but as articles of diet*, without which patients, with their defect of health, will as surely starve as healthy persons would if deprived of the most nutritive part of their food.

Pancreatine, affects the digestion and assimilation of Cod Liver Oil and Fat, as well as Food generally. This palatable and popular remedy is therefore invaluable to PATIENTS WHO ARE UNABLE TO DIGEST COD LIVER OIL, AND who are thus deprived of its nourishing and invigorating properties.

BEST FOOD FOR INFANTS!

—AS SUPPLIED TO—

THE ROYAL NURSERIES

OF ENGLAND, RUSSIA, ETC.,

And Containing the Highest Amount of Nourishment in the Most Digestible and Convenient Form.

The most perfect substitute for healthy mothers' milk.

Datura Tatula for Asthma, Etc.

A Powerful and Universally Adopted Remedy.

"By immediate contact with the air cells and passages, instant relief is given."—Dr. Latham, *Physician to the Queen.*

"A remedy of great power and usefulness in Asthma, Chronchitis, etc."—Dr. W. Barker.

"The smoke causes no nausea. I have never known a instance in which relief was not obtained"—General Alexander.

In Tins, for use by means of a Pipe, Cigars and Cigarettes, and Pastilles for Inhalation.

SAVORY & MONRE, 143 New Bond Street, London.

Agents for America.—E, FOUGERA & CO., New York.

Northwestern Medical College

St. Joseph, Mo.

Regular Annual Sessions Begin first Monday in October of Each Year.

FEES.

For the entire Course of Instruction $45.00
Graduation Fee 25.00

Board $3.00 to $4.00 per week.

OFFICERS.

F. A. SIMMONS, M. D. ..... President.
S. F. CARPENTER, M. D. ..... Treasurer.
J. P. CHESNEY, M. D. ..... Secretary.

With full Faculty of Eleven experienced teachers, covering all the branches in the "Minimum Requirements" of the State Board of Health.

For announcements, or other information, address any of the above officers.

E. T. Pelgree,

MANUFACTURER OF

Surgical and Dental Instruments,

TRUSSES, BRACES

—AND—

APARATUSES FOR DEFORMITIES,

REPAIRING, A SPECIALTY.

ALL ORDERS PROMPTLY EXECUTED.

317 North Third Street., St. Louis.

Bet. Olive and Locust Streets.

Index to Advertisers

Where to buy and where to find out about

Cocaine, Parke, Davis & Co. 1st, Page of Cover.
Lactopeptine, New York Pharmacal Association, 2nd, Page of Cover.
Mellin's Food, Doliber, Goodale & Co., 3rd, Page of Cover.
Fellows' Hypophosphites, James I. Fellows, 4th, Page of Cover.
Preparations of Lambert & Co., - - - - - - 1
Preparations of Battle & Co. - - - - - - - 2
A Portable Antiseptic Dressing, Jno. Wyeth & Bro. - 3
Preparations of E. Fougera & Co. - - - 4, 5, 24
Missouri Medical College. - - - - - - - 6
Ridge's Food. - - - - - - - - - - 7
Capsules, H. Planten & Son. - - - - - - 7
Hydroleine, Wm. F. Kidder & Co. - - - - 8
A. S. Aloe & Co., Surgical Instruments. - - - - 11
Preparations of Rio Chemical Co. - - - - - 12
Instruments of H. G. Farr. - - - - - - 13
Maltine, Reed & Carnrick, - - - - - - - 14
Murdock Liquid Food. - - - - - - - - 15
Young's Surgical Chair Co., - - - - - - 16
The Declat Manufacturing Co., - - - - - - 17
Horsford's Acid Phosphate. - - - - - - 18
Soluble Coated Granules, Wm. R. Warner. - - - 19
The Duffy Malt Whiskey Co., - - - - - 20
Peptonized Beef Tonic (Mensman's) Caswell, Hazard & Co. 21
Skin Diseases. - - - - - - - - - - 22
Pepsin, E. Scheffer. - - - - - - - - - 22
Preparations of Peacock Chemical Co., - - . - 23
Anglo-Swiss Milk Food. - - - - - - - - 23
North Western Medical College. - - - - - 25
Surgical Instruments, Pelgree. - - - - - 25
Hernstein & Price, Surgical Instruments Facing Editorial.

THE SAINT LOUIS
MEDICAL & SURGICAL JOURNAL.

VOLUME XLVIII——May, 1885.——No. 5.

Original Contributions.

ARTICLE LXI.

THE PLACE IN CREATION AND THE WORK IN THE ECONOMY OF NATURE OF MICRO-ORGANISMS. By HIRAM CHRISTOPHER, A. M., M. D., Professor of Chemistry in the St. Joseph Medical College, St. Joseph, Mo.

[CONCLUDED.]

The dead body of an animal lies in the open field in the warm months. After a time, nothing of it remains but the skeleton. Bone is inorganic matter, and was formed by the living cells of the organism, and is one substance returned to the inorganic state by cell-action. First, there come quadrupeds and birds, and devour the greater part. Then come flies gorging themselves, and leaving their eggs behind. Then these as larvae do their part in the consumption of the dead organism. These in time disappear as flies. All the time, from the first to the close, until not a vestige remains, micro-organisms—bacteria—are at the same work, and, as in simple putrefaction, occasion all the offensive odors arising from the carcass, odors which are the excretions of their organism. They are present in countless numbers, more numerous than the grains of sand on the sea-shore, a great army of voracious cormorants, whose whole life is passed in eating. These complete the work. The dead body has all been consumed as food, and none of it decomposed by physical agents. But it is to be particularly noted that, in disappearing as food of living animals, the mass of it has become constituent parts of these beings. How much has reached the inorganic state can scarcely be conjectured; but certainly not a little, as shown by the constant odors generated. In the colder months, quadrupeds and birds might consume much of it; but what remained after them would emit no offensive odors. When warm weather comes, then the odors will appear, and your glass will show that micro-organisms are also present, and in great numbers;—another fact

that proves that unicellular organisms are the only agents that restore organic matter to the inorganic realm, and are the cause of the peculiar odors.

Again: a tree lies in the forest. Liebig said, and all chemists after him, say the same, that it passes away by a slow oxidation or combustion, called by him *eremacausis*,—desert burning. Let us see what facts say, I have here some bark from an oak tree. You will see that the inner part is now white fungus, and the more external part brown in color, and some still darker. All this is fungus as the glass will show. Here is a part of a small limb of an oak. All the bark but the epidermis is now white fungus, and a part of the heart-wood has been attacked and replaced by the same fungus. Here is another specimen of fungus. It was a knot on an oak limb, but is now wholly fungus of a yellowish color. The structure as to external form is but little altered from that of wood. The process of replacement seems analogous to that which takes place when wood is silicified, only that the original structure is not retained as in petrifactions. The two processes are, however, wholly distinct, one being physical and the other, vital.

This fungus has been thought to be rotten wood, and when regarded as a plant, it has been thought to have grown on decaying organic matter. But the fact is as you see in these various specimens of fungus on bark. The internal surface being separated from the wood by moisture and varying temperature, fungi have found their way thither in the form of spores, and have there grown, appearing at first but as a thin superficial layer fillamentous in structure, but after in a granular form. They continue to grow by feeding on the dissolved organic matter until the whole of the bark is consumed, and then downward toward the centre in the same way until all the wood and original fabric has been devoured. In this way wood disappears; not by decomposition under the work of physical agents, but by the nutrition of lower vegetable organisms. Thus we see that life feeds on death; that the dead keep alive the living, and that nothing is wasted by physical agents or processes. Without death there could be no continued life. The circuit begins in the building work of the leaves of plants through their living cells, and ends in the constructive and destructive work of like organisms in the process of nutrition. In this round of work, whose initial and terminal points are near and distant, the equipoise

between the two realms of Nature is preserved. Plants are the formers of organic matter, and the great mass of it goes to the sustenance of life in animals, while these in turn become the food of each other. All the elementary constituents of organic matter, that reach the inorganic state, reach it only in the process of nutrition that goes on in all the living cells of the living organism. The quantity of that which becomes a part of the organism compared with the quantity which passes out as inorganic matter is relatively very great; so that organic matter in one animal in the changes which it may undergo in becoming the food of another animal, and so on through that one of others, may be years in reaching the inorganic state. An atom in the organism of Adam may not yet have attained its inorganic or original state. In like manner plants feed on plants, and do their part in the reduction of organic matter. Fungi and lichen consume the monarchs of the forest, and these, one the other, until at last those fungi and other low organisms remain whose fabric readily disintegrates, and as dust, finds its way into stagnants pools and shallow streams where it nourishes the germs of micro-organisms that are always abundant in such waters. Here it meets with unicellular organisms, analogous to the cells of complex organisms, and in being consumed by these, much of the organic matter of the plants reaches the inorganic state in the same way or by the same process—nutrition. This lowest and last series of organisms lie on the border of the two worlds of life and death, and are, consequently, the ultimate scavengers of the organic world. The living matter of cells is the agent or means whereby inorganic matter becomes organic, and the same living substance is the means or agency by which the reconversion is effected. These living cells, existing as individuals or in communities, have never ceased nor failed in their work during all the long ages of the past. Generations have come and gone, yet individuals remain, and the work of life and death goes on. But life has ruled all, dominated all: death has been but the means of its preservation and perpetuation. How admirable the economy of nature! How beautiful and wise its work! When can an end come to so closely connected series of effects and causes? When can the one cease and not the other? The ceaseless round of the same phenomena is prophetic of the hope that, in the end, "death shall be swallowed up of life."

Before the microscope was brought into use in the investiga-

tion of organized structure and vital phenomena, it is not strange that the nature of many processes was misunderstood or actually unknown. Hence phenomena now known to be vital were once regarded as physical. This was the case as respects fermentation and putrefaction, changes produced in organic matter by substances called ferments, which were supposed to be organic compounds, nitrogenous in composition, undergoing spontaneous decomposition, and which, by contact with other organic substances, imparted to them the change which they themselves were undergoing. This was Liebig's view, and seems to be that of chemists and physiologists at the present time. Or it may be supposed that they act by the influence of their presence merely, without undergoing any change themselves, an action or influence resembling that of sulphuric acid in the conversion of starch into glucose, as when the so-called diastase in the seed of plants during germination effects the solubility of starch by converting it into a soluble isomer. But this is not decomposition. When the embryo begins to grow, then we have decomposition, as is evident from the action—so thought—of yeast on sugar in fermentation. Here the yeast, being a nitrogenous compound, is simply food for the germ that has fallen into the solution from the air, like the albumen in which the embryo of seed is imbedded, and in its growth the sugar is used as food also, and we have as a result of nutrition the growth of the living organism and the excretion of alcohol and carbon dioxide. These are generally supposed to come from the decomposition of the sugar; but whether from it alone or from both the albumen in the yeast and the sugar in solution, is what has not been determined, and what, possibly, can not be determined, though it would seem that it ought to be within the compass of analysis. Pasteur estimates that about 90 per cent of the sugar is converted into alcohol and carbonic oxide; but how it is possible to determine how much of these results are furnished by the yeast and how much by the sugar is not at all evident. In any event, however, we know that the two substances have contributed to the nutrition of the plant, and in the cells of the plant have undergone a decomposition under the influence of life. Now, since fermentation is always attended by the growth of a living organism; and since neither the sugar nor the yeast would have suffered decomposition but for the growth of the germ, we are justified in ascribing the low organic substances and the carbonic oxide to the influ-

ence of the life-power operating in the contents of the living cellular organism, and to this power alone.

The processes going in fermentation, which are susceptible of a more direct observation, as respects their results, are essentially identical with those that take place in the living cells of complex organisms. In the one case the organism is unicellular and in the other multicellular, but the processes going on in them are essentially the same; so that what is true of the one may be affirmed of the other. This being so, and organic matter suffering a change of composition only in and through unicellular organisms in the processes of fermentation and putrefaction, it follows that the inorganic matter, secreted or excreted by complex organisms, arises from the changes of composition, which organic matter undergoes while serving as pabulum to their living cells. On the truth of this, it follows conclusively that organic matter undergoes no change whereby a part of its elementary constituents are eliminated in an inorganic form, except when subjected to the action of living cells, whether distinct or connected or whether individuals or communities. When, therefore, complex beings consume the mass of dead organisms, no part of that matter reaches the inorganic world except what is thrown off during the process of nutrition. What is formed into tissue or structure becomes, in turn, pabulum for others, and so on until all the elements which make up one organism, are finally restored to their original realm through the ceaseless round of pabulation.

From the facts and considerations now submitted it must appear evident that a grade of organisms is essentially necessary in the economy of nature, corresponding to the living cells of complex beings, and designed to accomplish what is manifestly impossible for living cells, the decomposition of the ultimate particles of organic matter. Hence, in the very nature of the case, such organisms must have their place at the end of the descending series, and their work, the completion of what is impossible with the higher organisms. They are, therefore, very properly called the ultimate scavengers of the organic world, the means ordained at the beginning of effecting the last changes in organic matter by which its elementary constituents get back again to the state whence they were taken by the same power acting in the artopoietic cells of plants.

Nothing decays; life dominates all; builds all and destroys all in the organic world.

Article LXII.

THE ORIGIN OF THE NERVOUS SYSTEM. A POSTHUMOUS PAPER. By ROBERT NELSON, M. D., of New York, edited by his Son C. E. NELSON, M. D.

[CONCLUDED.]

We now follow the phases of the nervous system in man, where it preserves the order and characters already mentioned.

While the human body is no more than a gelatinoid mass of basic tissue, it possesses no nervous system; but, no doubt, like the protozoa such as the hydra, medusa, etc., this mass must equally possess interstitial or diffuse medulla. In a short time, when the formative process acts conformably to the mysterious fiat which stamps the species, the nervous system which is one of the first formed, begins to concentrate into as many points, constituting lines, as there shall subsequently be found nerves in the finished animal.

The diffuse medulla may be recognized in some of those organs of the higher animals which are created for special service, and where it necessarily will exist in quantities accumulated in proportion to the vigor of the organ. In the human eye we shall find the origin.* of the optic nerve, called the retina, to be nothing more than such an accumulation of medulla, so predominant or pure, as scarcely to be distinguished by the intermixture of any other tissue. It forms a sedimentary bed, as it were, about $\frac{1}{10}$ inch deep, a quantity sufficiently great to perceive light, without exhausting its vigor, for a length of time.

In the nose, this sedimentary bed is less thick, because odoriferous matter is less fine than light, and will impinge a larger surface, but to a less depth, hence it is spread out on lamellar surfaces of extent exactly proportionate to the necessary exquisiteness of the olfactory sense. In herbaceous animals who have no means but instinct to guard them from browsing upon noxious weeds, many of which to *our* senses have little odor and would prove poisonous to cattle if they had not a vastly expan-

* Dr. R. Nelson regarded the nerves as going from the periphery to the centre.

ded olfactory surface capable of receiving the scarce perceptible odors. Hence they eat with equal safety in the night and when blind, as in the day or when enjoying sight. In this case, *taste* has little to do, for their tongues are too cuticular for that office, and that olfaction is the guide may be proved by this—if the upper lip of cattle be rubbed with a substance which is noxious to them, they will not eat, though craving for food, and when such as they delight in is before them. The diffuse medulla cannot be seen on the nasal membrane, for two reasons; 1st, it is too much expanded; and 2nd, it is mixed with mucous tissue to preserve it from physical injury, an accident to which the retina is not liable. When the olfactory expansion gets beyond the reach of external injury, we find it like the retina, a diffluent concentration of medulla, without any character of nerve. In the ear, we have another proof that the sentient portion of the nervous system is diffluent medulla. It is concentrated into quantity within the labyrinth, like in the eye.

Whenever we find an organ whose office is of an exalted degree, requiring vast special sensibility, we invariably find the medulla accumulated, and destitute of any linear character. If we carry this analogy to the skin, which is also a sentient organ, though we we shall not find the amorphous medulla collected in a perceptible bed as we found it in the eye and ear, and almost so in the nose, we find it diffused through the organ, in loops in the papillæ. Nerves do not keep on continually dividing, as we can prove by examining organs containing medulla: does the optic nerve divide into fine threads to form the retina? or does rather not the amorphous medulla called retina send off minime portions of punctiform medulla strongly encased in concentrated basic tissue, because of the motion of the part?

From the foregoing, we see that medulla, or nervous matter, exists interstitially in the tissues, and not as nervous threads. Long before nerves are created, innervation (inhibition) is perceptible, as is manifested by contractions in all those albuminous animals, which live absolutely without a nervous system, but not without medulla. We also find innervation present in those accidental and sudden albuminous effusions which follow burns, or accompany granulations* in effused fibrin.

* I will here intercalate a letter written to me by Dr. C. Heitzmann, of New York: Dr. H. is perhaps the most advanced physiologist of the present time.

New York, Feb. 10th, 1885.

Dr. C. E. Nelson,

Dear Doctor.

In reply to your query I wish to say that a new formation of axis-cylinders and axis-fibrillæ, the ultimate nerve fibres,—will occur in every chronic inflammatory process, leading to a new formation of tissue in general. To account for the *pain*, the old nerve fibres, being pressed upon, or breaking down to inflammatory corpuscles, are quite sufficient. The ultimate nerve-fibrillæ are not considered as stable formations.

Yours truly, C. Heitzmann.

39 W. 45th st.

The rudiment of a nervous system lies, then, in diffused medulla which is a constituent portion of all the tissues; and I suppose that there are three kinds of this matter in each tissue, for the three separate functions, nutrition, motion and sensation.

1st. It is scarcely possible that nerves of dissimilar office would be instruments capable of forcing a simple body to perform various functions, and to exchange these so suddenly, one for the other; while, if we admit that each order of nerves is the pendent of a distinct quality of medulla, we shall encounter no difficulty in this department of physiology.

2nd. There is great difference between one tissue and another as regards the amount or intensity of its innervation and the quality of the same: for instance, in bone and tendon, tissues that perform no function of contractility, that is motion, and which have no need of sensibility, we accordingly find both these qualities of the nervous system absent in the natural state, no osteitis. Under this impression, I imagine that sensitive medulla predominates in organs of sensation, as the skin, etc., that motive medulla predominates in motive organs, as in those that are contractile like muscle, and that medulla of the nutritive order exists in all parts and is almost the only kind found in those tissues which do not naturally enjoy sensibility or motion.*

In opposition to these views it may be objected that tendons and bones, basic tissue, etc., which truly manifest no sensation in their pattern (normal) state, really do so, and in a high degree, while suffering under certain diseases. This objection is

* The following paragraphy explain the formation of new nervous tissue in inflamed parts, differently from Dr. Heitzmann; and, I think, much more clearly and satisfactorily.—C. E. Nelson.

a strong one, is well based, and is unanswerable to all such persons as those who remain satisfied with strong first impressions, and who enquire no further. But this objection will be fully refuted when we come to the nutrition and decay of parts: for the present, it will be quite sufficient to say, that sensibility in parts which are not naturally so, is not acquired until the natural structure has been partially removed, and replaced by one that is proper to another structure.

Let me now declare that bone and tendon normally possess no other medulla or nerves than the nutritive; and when these structures become sensitive, it is because sensitive medulla has been *created* in them, precisely as we see it created in new structures. No motor innervation is ever found.

In the higher orders of animals it is proven by operations on their nerves, that they possess three distinct systems of nerves; 1st. a nutritive, 2nd, a motor and 3rd, a sensory. But in the lower animals, all these are not present. The zoophyte and rudimentary man, which live by imbibition and which execute no functions of relation towards other bodies, have no other than the nutritive nervous system, which is either wholly diffused, or only disposed towards centralization, so that the innervation is equally distributed in all parts, and not concentrated with regulating centres. As soon as the animal acquires special organs, and the digestive appears to be the first one formed, we see aggregations of medulla tending to the linear form, in order to link the functions of these new parts into a dependence on each and on the whole. Such is the creation of the next rise in innervation, and gives to the oyster a pneumogastric nervous system. As the animal grows more complicated by the addition of more organs for the attainment of new wants, the medulla in each will not only tend to centralization into cords within such organ, forming a system therein, but that system will seek union with systems from all the other organs; which place of union becomes a mass of medulla—ganglions, or brains. The visceral organs predominating with nutritive medulla, creates the great sympathetic. The pulmonary organs, less nutritive and more motive, create their motive system; and the organs of special sense create theirs; all three, mixed at their origin, travelling in company afterwards, but in separate vestitures, which they leave before uniting again at their opposite extremity, where they weave together,*

* Dr. R. Nelson, as mentioned before, considers the nerves as "going to" the brain, instead of "coming from" it.—C. E. N.

and with the addition of more medulla, constitute the brains.

In the higher animals, then, we have a *nutritive* nervous system in each section of the animal, and in each pendant of a section; the several unions of each of these systems constituting that system of ganglia and their prolongation called the great sympathetic; pervading and uniting all organs, however remote they may be. This explains the meaning of the sixth cerebral nerve, which in the older books is called the origin of the great sympathetic. Its office is that of subjecting the nutrition of the pendent organs to the cephalic sections (as the eye, etc., and even the brain) to a dependence or reliance on the digestive organs. This view of the nervous system explains the fact which would otherwise appear singular, that nutrition continues with equal vigor in a paralyzed part as in one that is not; allowance being made for the difference which depends on a continuance or cessation of motion in a part. For instance: The perceptive faculty of the eye may be paralyzed, as in amaurosis, yet the eye suffers no atrophy in the retina, for though impressions of light do not reach the brain because of lesion somewhere between the eye and termination of the optic nerve, nevertheless the retina is exercised as usual, and with the integrity of a nutritive nervous system it continues to be nourished. The limbs of a paralytic person are less nourished because they are less exerted, but they are nourished.

A nerve is composed of a great number of twigs proceeding from as many points as centralization commenced at. But these twigs are not all of one kind in every nerve; but are so in a few which reach the great focus of medulla (cerebrum) through the special vertebræ (which human anatomists understand as the head)*, such nerves are the vagus, and the portia dura of the seventh. But such as reach the centre through a rachidian vertebræ, are all composed of three kinds of fibres—nutritive, motor and sensory; but, after leaving their common investment (sheath) and within the arachnoid, they appear to separate—the sensory commingling with the posterior column of the cord, and the motor with the anterior column.

To sum up, we repeat that man has as many nervous systems as he has distinct parts: some of these being single in

* In comparative anatomy, the skull is made up of four vertebræ, nasal, frontal, parietal and occipital:—these are the "cranial vertebra." C. E. N.

function, but the greatest number are triple. As the zoophyte has diffuse medulla, and the human embryo in its primitive stage is the equivalent of a zoophyte, it also possesses such a system. As man is a compound animal, made up of a repetition of sections more or less similar, each section dependent on a common organ for nutrition, they must each be nervously connected with this organ, and these several connections make the splanchnic system. As man has to search for his food, he is endowed with a motor system, and this requires for its completion a corresponding nervous system; the first type of which is seen in the mollusk and is present in every succeeding animal, and is found in man as the pneumogastric system; and is further existing in all other moving parts of his body.

As man has to discriminate, he is endowed with a sensory system, which is more or less predominant in certain organs, as these shall have more perception to exercise. Besides this, he is endowed with special perceptions which are to subserve his wants, as odor, taste, hearing and sight. Hence he has as many nutritive, sensory and motor systems, as he has sections of the body, 4 for the head,* 7 for the neck, 12 for the trunk, 5 for the abdomen, 5 for the pelvis as represented by the sacrum,—while the coccygeal vertebræ are rudimentary, their systems must be the same. (The coccyx commences by 4 centres—the two last soon fuse, leaving 3 bones.) Besides these 37 sets of nerves or systems, several of the sensory appendages to the cephalic sections are made special, which give olfactory, justatory optic and auditory nerves to man; which are four varieties of sensation.

---

* See my note above, in regard to four cranial vertebra.—C. E. N.

NOTE.—In regard to Dr. R. Nelson's statements that nerves *go to* the brain and ganglia, and do not *come from* the same, and that nerves are *formed before* brain or ganglia, I will append here the following extract from Erasmus Wilson's Anatomy, in the section on the Nervous system: "The connection of a nerve with the cerebro-spinal axis is called, for convenience of description, its *origin*; this term must not, however, be taken literally, for each nerve is developed in the precise situation (this was stated with clearness by Dr. R. N.) which it occupies in the body, and with the same relations that it possesses in afterlife. Indeed, we not unfrequently meet with instances in anencephalous fœtuses, where the nerves are completely formed, while the brain and spinal cord are wanting."—C. E. N.

Article LXIII.

The Relations of Skin Diseases to Marriage.* By A. H. Ohmann-Dumesnil, A. M., M. D., Professor of Dermatology and Syphilis, St. Louis College of Physicians and Surgeons.

Marriage and syphilis has been so thoroughly discussed and so much attention has been paid to it, not only by syphilographers, but by the profession in general, that all the phases of the question have been considered. Despite this, all authorities are by no means united in their conclusions, although all agree that, during certain stages of the disease, marriage is entirely precluded. That syphilis is hereditary and transmissible is acknowledged by all who have had any experience whatever in the observation and treatment of the disease. Those physicians who have paid any considerable attention to insanity and affections of the nervous system, claim for many forms of the neuroses if not a direct transmission, at least a hereditary tendency to the same or allied forms of nervous lesions, derived from one or both parents. Rheumatism, gout, hemophilia, phthisis, and a number of other general affections are accused by a number of experienced writers to have that power in them by which the patient will hand down the peculiar susceptibility to those diseases, to his unlucky progeny. On the other hand, some very respectable authorities deny heredity as such, while acknowledging that the physical weakness is perpetuated.

A few of the more common, and at the same time most troublesome diseases of the skin will be briefly noticed in this paper, and an attempt made to point out the probable chance of their reappearing in the offspring, together with the reasons why patients suffering from certain dermatoses should, if not entirely give up marriage, at least postpone that relation until circumstances justify such a course. As a prefatory remark it may be stated that it is not necessary for the mother or father to

*Read before the St. Louis Medical Society, April 5, '85.

be the recipient of the trouble from the consort in order that the child may be the subject of the disease.

It is not the local manifestations of the disease that constitutes the active factor, but rather the general condition of the entire economy of one of the progenitors, which has undergone certain more or less profound changes which manifest themselves more or less distinctly upon the external surface of the body, as a sort of danger signal; and, generally, there are certain appearances connected with these lesions that, to him who can read, constitute a fair index of the severity of the existing condition.

It is manifestly obvious that a person suffering from an infectious or contagious disease should not marry during the active period of the trouble. No one afflicted with any one of the parasitic diseases would object to submitting to a proper course of treatment before marrying. But there are some troubles of the skin which, although we may admit that they are neither contagious nor directly transmissible, or only rarely so, are sufficiently dangerous, in this respect, to awaken our attention and deserve more study. It will be noted that the extreme views of the French and German schools of dermatology have been avoided, as we are not willing to admit, upon the one hand, the universal constitutional nature of all dermatic affections; nor will we, on the other, concede that they are all purely local and due, almost without exception, to external causes alone. For this reason, whatever authorities we have consulted are chiefly those occupying what we consider the most rational position, which is one situated midway between the two extremes, and from those who are willing to let theory bend to facts.

The object of these few remarks is not so much to uphold a theory as to inquire whether there may not be enough in the question of the heredity of skin diseases or the predisposition thereto, to make it of some moment to the medical practitioner who may be questioned as to such being a bar to marriage.

Eczema is by far the most common and, unfortunately, it often becomes the most intractable of the troubles afflicting the skin. When first studied the disease was for a long time regarded as purely local; then it was admitted by a large number that it might be somewhat dependent upon internal causes. Its heredity was denied *in toto* at first. We find that, later on, in

speaking of the etiology of this protean disease that some authors acknowledge having seen a few—a very few—cases, which they considered hereditary. The latest work on the subject and one which we, as Americans, are proud to point to, is Bulkley's sterling work. He says*: "But, on the other hand, although the disease appears to come by direct inheritance in but a few cases, it is still true that in a certain number it is seen to be hereditary, and whole families are sometimes affected, not only in one generation but in several." . . . Again, "Scrofula or struma undoubtedly appears as a predisposing cause of eczema in the way of inheritance, quite as effectually as when existing in the individual." Van Harlingen, Piffard, Liveing, Duhring, E. Wilson, and even Neumann acknowledge that, in some cases, this disease is undoubtedly hereditary. There is also a greater probability of its being transmitted, if it exists as an old, chronic and intractable form of the disease in the parent.

The next most common affection which we meet with in practice is, no doubt, psoriasis. This disease is acknowledged by all authors of any prominence to be hereditary. It is contended, however, by a number of recent observers that the heredity is more marked, or more liable to be seen, if one or both parents have had the disease in a marked and recurrent form. In those cases in which it assumes the "universal" form, it is pretty certain that the offspring of the affected parent will either exhibit the same disease, or some allied cutaneous affection.

Lupus vulgaris, whose pathology is as yet involved in more or less obscurity, is another one of those dermatic affections which would seem to be transmitted from parent to child. We will not inquire whether the neoplasm which constitutes it is scrofulous, tubercular, or of some other origin. Any one of these causes is sufficiently impressed upon the constitution of the progenitor to involve that of the progeny by direct inheritance.

Ichthyosis, especially of that variety known as "ichthyosis hystrix," is undoubtedly a hereditary affection, or, rather, deformity. There is no single author who has ever observed any number of cases, limited though it be, who has not immediately had his attention called to this important fact. It would be useless here to advert to the *dicta* of the many dermatologists

*Second Edition, p. 93.

who have expressed an opinion upon the subject. The disease is undoubtedly the most markedly hereditary one with which we are acquainted.

Lepra, or true leprosy, whether it be dependent upon a bacillus or not, is transmissible from parent to child. Although no well-authenticated cases exist to show that it has been acquired by contagion, or that its bacillus has been successfully inoculated, examples of its occurrence in families which have continued leprous for several generations are numerous and well attested. Whether the primary cause be climatic or parasitic, the fact of its heredity remains.

Chronic pruritus has been observed in a mother, her daughter and granddaughter, as detailed in the *Journal of Cutaneous and Venereal Disevses*, February, 1885, by Dr. Wm. J. Maynard. An interesting fact in connection with this is that the male members escaped.

Sarcoma and carcinoma of the skin are further examples—of a malignant type of disease—of dermatoses which are transmismissible from generation to generation.

The writer has observed cases of vitiligo in which the trouble was transmitted to the offspring apparently. Not only was there a reappearance of the disease in the children, but all were affected in a manner similar to that of the parent, and identical parts were the first to be involved in the process.

We know well that the color of the skin is very susceptible of being transmitted to the children, and we daily observe such as the result of mixed intercourse. Each race has certain pigmentary peculiarities of the skin, which, by some process or other, seem to be stamped upon the child to a greater or less degree. In certain families we find that a lock of white hair in a particular locality is transmitted from generation to generation, just as other peculiarities or deformities are. Often, again, whole generations escape, and the "sign" reappears upon a remote descendant, showing that although this peculiar force may become latent, it does not necessarily lose any of its strength on that account, as all those acquainted with the facts of atavism know.

A cursory glance at these various examples would seem to indicate that heredity plays a very unimportant part in the genesis of skin diseases. But when we take into consideration the

small amount of care taken, not only to trace diseases back to their origin, but also the inability to follow the various successions through different generations, the amount of evidence offered acquires more force than would be at first accorded to it. Besides this, the cause can often be recognized as being some condition which has shown itself in different ways, and only evidence itself as a skin disease in the last member of a long line of individuals. Were our observers to pay more attention to this subject, there is no doubt whatever that the *role* played by heredity would be found to be much more important than it is regarded at the present time.

As a natural conclusion it will follow that, if certain skin diseases are directly transmissible, or if the causes thereof are, marriage between individuals affected with these troubles, whether the disease be confined to one or both of the high contracting parties, should be very carefully considered, if not prohibited. Before permitting such an union to take place, the dermatic genealogy should be carefully examined, and all the possibilities conscientiously weighed. The intention of this paper is rather to call attention to a few isolated facts, and to direct observation to a new point in connection with the etiology of skin diseases which may prove serviceable in the prevention of a number of the most intractable and chronic affections which afflict the human skin. There is no doubt whatever that the more these relations are sought after the more often will they be found, and enable the physician to give safe and reliable advice to those cases where it will be needed or sought.

ARTICLE LXIV.

REPORT OF FOUR CASES OF TRICHINOSIS, THREE OF WHICH RECOVERED.* By J. D. WHITLEY, M. D., Petersburg, Illinois.

January 26, 1885. Was called to see Mrs. S., aged 27; mar-

*Read before the Brainard District Medical Society April, 23, '85, and accompanied with microscopic specimens of the trichinæ encysted in the pork during their migration in the patient and encysted in the muscles of the patient after death.

ried, the mother of three children; antecedent history good; Scotch by birth; had always enjoyed the best of health. At the date of this visit the patient had been sick nearly two weeks and thought her sickness due to pregnancy. She was first taken with sick stomach, which continued for some time, when diarrhœa and vomiting came on, accompanied with gastro-intestinal pain. When I saw her she complained of severe aching in her bones—as she expressed it. There was accelerated pulse, increased temperature, 102°, with extreme debility, restlessness and profuse sweating, accompanied with suffocative sensations. There was also a puffiness of the face with peculiar *bluish discolorations*. I prescribed the usual remedies for febrile conditions.

At my next visit, January 29, I found the patient in about the same condition, except that all the above symptoms were more intense, with commencing œdema of the extremities, with great tenderness over the abdomen and chest, and all the muscles of the body painful under pressure. The tongue was protruded with difficulty on account of swelling and soreness in the muscles of the neck and jaws. Upon inquiry I found that they had killed two hogs about a week previous to her illness, and the husband was disposed to attribute her sickness to a cold she had taken while engaged in rendering lard. On the following day I requested the husband to bring me a slice of the ham of each hog which they had killed. Upon subjecting one of the specimens to a microscopic examination I found nothing, but in the other ham I found eleven trichinæ encysted. In every examination of the infested hog, trichinæ were found in great numbers. In one grain of the meat 104 trichinæ were found, which would give 49,920 to the ounce or 798,720 to the pound of lean ham.

On the following day I again visited the patient and found no improvement: on the contrary, all the symptoms above enumerated were becoming more intensified; the arms were flexed, and any attempt to extend them was followed by severe pain. Any attempt to change the position of the patient would cause her to cry out with pain. I elicited the following additional history: That while preparing the sausage after killing the hogs she had eaten a quantity of the meat in a raw state, not less than two tablespoonfuls. I prescribed salicylate of soda and glycerine in full doses. Before leaving the house I procured a

small qnantity of the sausage, which, upon examining with the microscope, convinced me that the case was one of trichinosis and that the patient had undoubtedly taken a fatal quantity of the diseased meat.

About this time (February 1) the husband and a hired man were both taken sick; they were doing the cooking during the illness of the wife and were using the sausage. The symptoms in both these patients were analogous and consisted of nausea, diarrhœa, gastro-intestinal pains and a feeling of depression with slight fever. These patients were given very thorough catharsis, followed by full doses of quinia. They both recovered in a few days. During this time there was no improvement in the case of Mrs. S.; the œdematous condition was steadily increasing: the arms were flexed and greatly swollen. There was dyspnœa and difficulty of swallowing and a great dread of being moved on account of the pain it produced. On February 13th I again visited her, accompanied by Drs. T. P. Autle and C. E. Elliott to see the case with me, and having previously obtained the consent of the patient, we administered an anesthetic and removed a portion of the biceps muscle of the right arm for the purpose of confirming the diagnosis. Upon microscopic examamination, this muscle was found to be literally swarming with trichinæ in the migratory stage and just commencing to be encysted, as shown in the specimen.

At the end of about four weeks from the beginning, the fever abated, the temperature became subnormal, the pulse normal in frequency but weak; diarrhœa, vomiting and nausea had all ceased, but the patient remained in a state of great exhaustion. Œdema became general, the whole body was swollen and especially dependent parts. Loss of appetite and sleeplessness also existed.

I prescribed whiskey, glycerine, salicylate of soda, alternated with elix. ferri et gentian and morphia to produce rest and allay pain.

On February 23d a Mrs. M. was taken sick. She had come to wait on Mrs. S., and had been there about a week. Upon inquiry she stated that she had eaten some of the sausage at two or three different meals. She was one of several who did not think Mrs. S's sickness was due to eating pork and she was not afraid to eat it. Her symptoms were the same as the two male patients, and I was sure that she also had converted her abdom-

inal viscera into an incubator for the hatching of trichinæ. She was quite sick and not a little frightened lest she might share the fate of her friend Mrs. S. I prescribed calomel 1 gm., santonine 0.4 decigm, rhei pulvis 2 gm., made into three powders, one every six hours. I instructed the attendants to keep the evacuations until my return. I saw the patient on the next day; she complained of the thoroughness of the cathartic and seemed much prostrated. I prescribed tonic and supporting treatment. In a few days she was able to be up and went home. Upon examining the fæces with the microscope great numbers of trichinæ were found in a free state, but apparently dead. I since learned that this patient was troubled with localized pains she called *rheumatiz*. My opinion is that some of the young trichinæ escaped the action of the cathartic and found their way into the muscles, where they became encysted.

On March 20th I visited Mrs. S. for the last time. There was no improvement in the case, but a rapid decline was noticeable and death from exhaustion seemed imminent.

The diagnosis of these cases was strenuously opposed all the way through. Some seemed to feel that their interests as hog-raisers were being assailed. They busied themselves in refuting the true cause of the family's sickness. They diagnosed the case as dropsy, rheumatiz, etc. At this juncture the pressure became so great that I was unceremoniously dismissed from the case, proving the truth of the old adage: "Where ignorance is bliss," etc. On March 23d the patient, Mrs. S., died, after an illness of nearly two months.

On March 24th an autopsy was held. Dr. T. P. Autle furnished me with a small portion of the diaphragm, rectus abdominus and heart. No parasites were found in the heart, but the diaphragm and rectus contained great numbers of living trichinæ encysted. After pressing them out of the capsules their movements were very perceptible in the field of the microscope. The movements consisted of alternate relaxing and tightening of the spinal ring.

From a consideration of the above details the following conclusions seem warranted:

1st. The diagnosis of trichinosis cannot be made without a miscroscopic examination either of the meat which causes the sickness of the patient or of the evacuations.

2d. The treatment to be effective must be commenced within the first week after the ingestion of the diseased meat.

3d. The treatment should consist of anthelmintics and thorough catharsis, followed by tonics and restoratives.

4th. Cooking as ordinarily done is no safeguard against this strange and awful disease. Prof. Perroncito, of Turin, has shown that when trichinæ are exposed to a temperature of 50°C. (122° F.) for five minutes they are killed, while Leuckart claims that a temperature of 65° to 70° C. (149° to 158° F.) is necessary to destroy them. Prof. Perroncito found that a ham weighing twelve pounds, put into cold water and heated, had only attained 77° at the center when the surrounding water had reached the boiling point, and even after thirty minutes' boiling the thermometer indicated at different parts of the interior only 95° to 104° F., a temperature far below the death point of trichinæ in the state in which they are usually found in flesh.

(The paper concludes with the valuable deductions of Leuckart, quoted by Cobbold. These are well known, and want of space prevents our reproducing them.—ED.)

ARTICLE LXV.

TWO CASES OF PARALYSIS OF THE EYE MUSCLES. INTERESTING IN REGARD TO THEIR ETIOLOGY. By C. BARCK, M. D., of St. Louis.

CASE I. Mr. G. F., æt. 26, barber, consulted me in May, '83, on account of double vision. The patient is a medium-sized, somewhat pale-looking man, German, since two years a resident of this country. He has had severe attacks of malarial fever for six weeks, but felt well during the last week after appropriate treatment by a physician. Two days ago he was struck by the sensation that he saw all objects double, when he directed his eyes to the right side. This became worse. The objects were seen double nearly everywhere and the condition was so annoying that he could hardly walk in the streets with both eyes

open. He soon began to keep the right eye more or less closed, in which condition he came to my office.

Examination shows a nearly total paralysis of the external rectus muscle of the right eye.

The eye—when examined alone—can be moved upwards, downwards and inwards to the same extent and as easily as the left one. It can be moved outwards only a little beyond the median line and with effort.

Both eyes fixed at a distant point in the median line show a slight convergent strabismus; this increases to a considerable degree when the eyes are moved to the right side, but decreases and soon disappears when they are moved to the left side.

Double images (the examination being made with a candle-light in a dark room) are seen in the median line at a distance of about one and a half feet. They are homogeneous — the right one belonging to the right eye. The distance between the two images increases when the light is moved to the right side, decreases when moved to the left, and the double vision disappears in an angle of about 30° from the median line. No ptosis. Pupils of equal size; prompt reaction. Shortness of vision in both eyes normal. No errors of refraction and accommodation, so that this was an uncomplicated case of acute paresis of the external rectus muscle, and the next question was as to its cause.

In regard to the etiology, the paralysis of muscles are divided into those of central or cerebral and those of peripheral origin. The former are met with as symptoms of diseases of the brain and the meninges. In our case there was not the least symptom of any disease of these organs.

Paralysis of peripheral origin with the supposed seat in the orbit occur most frequently in consequence of syphilis. The next most frequent cause is rheumatism.

This patient had never had syphilis; he is married; one healthy child. He gives no history of rheumatism; had felt only a very slight pain in the orbit the first day of the paralysis. He was never sick in his life previous to his malarial disease. So I was inclined to the conclusion that it was due to this poison. I drew a favorable prognosis and treated him with large doses of quinine, later, arsenic and iron. The diseased eye was excluded from vision by a shade. After which a certain degree of

dizziness, in consequence of double vision, disappeared at once. The paralysis remained stationary for three days; then began to improve slowly. The double images came nearer to each other until they were confounded; the action of the muscle grew gradually stronger. In less than three weeks the recovery was complete.

This case was of special interest to me. For not one of the European authors mentions malarial disease as the cause of paralysis of the muscles of the eye—not even A. Graefe in the large Graefe-Saemish Handbook. Even American writers mention the subject only briefly. As to the anatomical and pathological seat I cannot offer any explanation.

CASE II. Mr. S. P., æt. 34, merchant from the country, came to my office in April, 1884, with a nearly complete paralysis of all the branches of the oculo-motor nerve of the right eye. Ptosis; the lid can be raised only a little with effort, uncovering the lower third of the cornea: medium-sized divergent strabismus of the right eye. The eye can be moved only outwards. All other movements downwards, upwards and inwards are nearly wanting. The pupil is dilated nearly *ad maximum* and there is no reaction. Acuteness of vision in both eyes normal. Accommodation in the left eye normal; in the right one limited.

This condition prevailed for two weeks: it developed in the course of a few days. In the beginning there was some double vision and consequent dizziness, which, however, disappeared as the increasing ptosis excluded the diseased eye from its function.

The patient is a strong, healthy-looking man; is married; has two healthy children. He denies ever having had syphilis; no cerebral symptoms at all: the paralysis developed without any spmptoms of disease. No pain in the orbit nor in the head. The only probable cause which patient can give is, that a few days since he struck his head against a piece of furniture, but only slightly. I ordered rest and gave him a weak solution of iodide of potassium, and told him to return in about a week. Instead of doing this he wrote me a few lines two or three weeks later that his eye was improving. This is the last I heard of the case.

In regard to the etiology there are in my opinion two possibilities. In consequence of the injury there may have occurred

a hæmorrhage within the orbit. But I doubt very much if syphilis was not the cause, in spite of the denials of the patient, who was somewhat reluctant when I questioned him closely on the subject.

ARTICLE LXVI.

UNUSUAL WEIGHT OF A NEW-BORN CHILD. By E. BENKENDORF, M. D., of St. Louis, Mo.

Mr. Tarnier says that the weight and length of children at birth has been generally exaggerated. Madame Lachapelle, of Paris, delivered one child weighing twelve pounds among 4,000 cases. Mr. Merriman mentions one weighing twelve pounds. Mr. Tarnier was called in consultation by Dr. Riembault in a case of shoulder presentation; the weight of the child at birth was eighteen pounds; its length twenty-four inches; its bi-acromial diameter measured nine inches. The mother of the last mentioned child was not delivered until a month after the expected time.

I delivered Mrs. Flaherty, residing at 1507 Gratiot street, St. Louis, in April, 1885. The labor was tedious, and though the pains were very good and the perineum offered no resistance, it was necessary to use the forceps when the head had descended into the inferior strait. The head was too readily extracted, but the shoulders required patient manipulation and a good deal of force. The child weighed fourteen and one-half pounds; its length twenty-four inches; its bi-acromial diameter measured eight inches. Mrs. Flaherty had expected her confinement a month sooner and she was sure that she had made no miscalculation. The case is, therefore, a parallel to that of Mr. Riembault's.

I would also mention that the delivery left Mrs. Flaherty without a laceration of the perineum, and I, therefore, conclude that the shoulders do not cause the laceration of the perineum as often as is supposed by some accoucheurs.

1510 Gratiot street.

DIFFERENTIAL DIAGNOSIS OF THE VARIOUS STAGES OF PRURITIC RHINITIS.

COLDS IN THE HEAD.	FIRST OR FORMATIVE STAGE.	SECOND STAGE OR MAY AND JUNE FORMS.	THIRD STAGE OR JULY FORM.	FOURTH STAGE OR AUTUMNAL FORM.
No ITCHING of the eyes, nose or throat.	Very slight ITCHING of the eyes, nose and throat, especially after a prolonged cold.	ITCHING of the eyes, nose and throat always present.	ITCHING of the eyes, nose and throat one of the most prominent symptoms; the skin is also sometimes affected.	The most marked symptom is the ITCHING of the eyes, nose, Eustachian tubes, ears, pharyngo-nasal cavity, pharynx, larynx, trachea, lungs and the whole body, the latter is frequently affected with an eruption as a sequence.
Sometimes SNEEZING, but never in paroxysms; not more than three sneezes at a time.	SNEEZING more severe than with an ordinary cold, frequently five to eight sneezes at a time.	SNEEZING quite a prominent symptom, paroxysms occurring four or five times a day. Each sneeze is complete. Patient able to keep the handkerchief to his face.	SNEEZING is so frequent that it is quite fatiguing; it is in severe paroxysms. The sneezes, after the the first one one or two are partial or incomplete. Patient sometimes does not keep the handkerchief to the face, sneezes without it.	SNEEZING is a formidable symptom; some patients fall from their chair during the paroxysm. Almost no sneeze is a complete one. Patient never pretends to keep a handkerchief to his face; grasps a chair or table and sneezes without anything to his face.
EYES but sligtly, if at all affected; light does not effect them in the least.	EYES more than usually suffused with tears but not inflamed, light has a slightly disagreeabe effect.	Tears flow profusely from the EYES, but the eyelids are only slightly inflamed; light has a disagreeable effect.	EYES suddenly suffused with tears; eyelids still greater inflamed, and are puffy; light even after the cessation of attack is disagreeable.	EYES blinded with profuse lachrymation, eye-lids greatly inflamed and quite puffy; light cannot be tolerated at any time during the most of the pruritic season.
Not aggravated by DUST of any kind; or the emanations of HAY or any kind of FLOWERS.	As far as observed is slightly affected by DUST, HAY and FLOWERS, but irritation is not observed until the subject is mentioned.	All experience a sufficative sensation from DUST, and one-half of them are affected by HAY, ROSES and early FLOWERS.	A little more than one-half of them are affected by HAY, very few by ROSES or early FLOWERS; DUST from a carpet is the most irritating.	Very few are affected by HAY or ROSES or early FLOWERS, but every one of them are affected badly by DUST, especially from an old carpet and from cinders; the latter has an almost instant choaking effect.
No regular TIME for attack.	TIME of attack, January to July.	TIME of attack in May and June.	TIME of attack in July.	TIME of attack from August to November.
No ASTHMA or spasmodic COUGH.	ASTHMATIC breathing and severe COUGH, but not spasmodic.	ASTHMATIC breathing and slight attacks of ASTHMA and severe and sometimes spasmodic COUGH.	ASTHMA more common and COUGH more severe and nearly always spasmodic if it lasts long.	Severe attacks of ASTHMA especially toward the close of the season, COUGH is always spasmodic.
Not relieved by a change of residence.	No observations made on locality of residence.	Dr. Wyman says that it is generally relieved by a residence at the sea-coast and in large cities. My small experience agrees with this.	Dr. Beard did not made special inquiry as he mixed all forms in his remarks, but it appears that a nothern climate and mountainous regions are beneficial.	Dr. Wyman says that entire relief is found in certain mountainous regions.
No certain time for DISAPPEARANCE.	A dose of quinine will cause it to DISAPPEAR.	DISAPPEARS in four or five weeks after it commences.	DISAPPEARS in about six or eight weeks after it commences.	With the great majority it DISAPPEARS with the first hard frost.

By Thos. F. Rumbold, M. D., of St. Louis, Mo.

ARTICLE LXVII.

Editorial Department.

FRANK M. RUMBOLD, M. D., Editor and Proprietor.
COLLABORATORS:
H. CHRISTOPHER, A. M., M. D., Medical Subjects.
FRANK L. JAMES, Ph. D., M. D., Translations and Microscopy.
A. H. OHMANN-DUMESNIL, A. M., M. D., Translations and Dermatology and Syphilis.
J. C. MULHALL, M. D. Diseases of the Respiratory Organs.

Original articles, correspondence, short reports of cases from private practice, solicited from all quarters.

Eastern Agents, J. H. Vail & Co., 21 Astor Place and 142 Eighth St., New York.

European Agents, Trübner & Co., 57 & 59 Ludgate Hill, London.

Terms $3.00 per annum, in advance.

COMMITTEE OF THE AMERICAN MEDICAL ASSOCIATION AND THE INTERNATIONAL MEDICAL CONGRESS.

At the meeting of the American Medical Association in New Orleans, considerable comment was made on the action of the committee appointed at a previous meeting for the purpose of obtaining the next meeting of the Congress in the United States. Some denounced the action of this Committee in the bitterest terms, others thought that they had overstepped their bounds but had committed no intentional wrong. Certainly it would have been better and wiser to have consulted the Americans who were present at the Congress and yet it is not an unpardonable error.

From information derived from members of the Congress, both from this and from other countries, we firmly believe that there was no agreement, nor any semblance of such between the committee and the "new code" men.

Now that the committee has been enlarged and authorized to

revise the actions of the previous committee, it may not be amiss to recount some of the precedents established at the previous meetings of the Congress, not that they need it nor will not get plenty of advice from other quarters, but that having an idea and desiring justice we wish to express it.

At the meeting at Amsterdam, when it was decided to have the next one in London, all the Englishmen *who attended*, were placed on the committees for the next meeting. At the meeting in London, when Denmark was chosen as the next place, all the *members* from that country were placed on the committes; and now that this country has been chosen, all Americans, *who were either permanent or delegated members*, should by all means, be given a place on the committees, for as it is an honor, they, who have added their mite to make the Congress what it is, should be allowed that honor, in preference to those who are not members and have done nothing towards the growth of that body. Especially should this be so since the Congress, which in its last five meetings has swelled its numbers from a few to thousands, promises to be more largly attended than ever at its coming meeting, and there will be ample room on the different committees, not only for all the American members who attended, but also for four or five from *each* state in the Union.

If we were to ignore the "new code" men who are members, we would not only show the Congress disrespect but also show our own narow-mindedness.

While we are strong supporters of the Code and would not have any new "code men" appointed, except those who are members of the Congress, we would not like to see the American Medical Association, the pride of every honest practitioner, act disrespectfully to its guest, for *all* members of the Congress are its guests.

We desire to enter a strong plea for the thorough representation of the South and West and especially for the appointment of those who are members of the Congress, for surely those persons who have taken enough interest to not only become mem-

bers but to attend its various meetings, are distinguished and representative enough to fill with honor such positions.

THE BACILLUS OF SYPHILIS.

In a former number of the JOURNAL we noted the fact that Dr. Sigmund Lustgarten, first assistant to Prof. Kaposi, claimed to have discovered a method of staining and differentiating the bacillus of syphilis. March 27th he read a paper before the Royal Imperial Society of Vienna detailing his method and a translation of this has appeared in the *Maryland Medical Journal*, of April 11th, a copy having been transmitted in advance to that journal by Dr. Walter Wyman, formerly of this city. The method is as follows: Sections which have been hardened in alcohol are colored in a solution of gentian violet (Ehrlich-Weigert) from 12 to 24 hours at the ordinary temperature; and then for 2 hours at 104° F. The section, in order to be decolorized, is first washed in absolute alcohol for several minutes, then conveyed into a watch crystal containing about 3 c. c. of a 1½ *per cent.* solution of permanganate of potassa. It is allowed to remain 10 seconds in this. It is then immersed in an aqueous solution of chemically pure sulphurous acid. In a very short time it appears entirely rid of its coloring matter in some places, whilst deeply colored in others. It is then washed in distilled water and placed again in the permanganate of potash solution and after this to the sulphurous acid. After going through this process three or four times, it will appear colorless. It is then dehydrated with alcohol, rendered transparent in clove oil and ready for mounting in Canada Balsam.

The method of distinguishing this from all other bacilli, lies in the fact that the bacilli of syphilis, of tuberculosis and leprosy are not decolorized by this method. Again the bacillus of syphilis is decolorized by nitric and hydrochloric acid while the bacilli of the other two are not.

The bacilli themselves present the appearance of straight or curved and sometimes irregularly bent rods. Under a low

power they appear uniformly smooth, with here and there a bulbous swelling at the extremity. With a homongenous immersion lens their surface appears irregularly undulatory and slightly notched and within them, at equal distances from each other, oval, colorless, bright spores varying in number from two to four.

Some interesting facts in connection with this subject are given by Dr. Lustgarten. The examination of two chancroids failed to show the presence of the bacillus. In 16 cases of syphilis examined, the result was positive in each. He regards the bacilli as the carriers of the syphilitic virus. An important fact is, that the occurrence of bacilli in the rete mucosum accords with the clinical observation that, in certain cases, syphilitic infiltrations need only lose their covering of horny epidermis to become contagious, becoming "moist papules."

The author regards his discovery as one giving in syphilis one which is of equal diagnostic importance to that of the bacillus of tubercle in the sputum of phthisis. He ventures to hope that a method may yet be found, by the cultivation of these bacilli, whereby a means will be successfully attained to combat the dread disease, as has been done in splenic fever and other infectious diseases.

That the discovery is of the highest importance to syphilology there can be no doubt. Pathological research in syphilis will doubtless be directed into a new channel and the few hints thus far thrown out by Dr. Lustgarten will fall upon fruitful soil and we may expect ere long to be gratified with researches which will be of the highest scientific interest and practical utility.

A. H. O-D.

RELIGIOUS SUPERSTITION *vs* HUMANITY

The City of Lyons, among the many monuments of art and learning which have become hers through the slow process of the ages, boasts one of the oldest as well as one of the best schools of medicine not merely in France but in the whole world. Her

Faculty is unexcelled even by that of Paris in men who are eminent in every department of medical science, and the school is in every way, except in point of the number of its students, inferior to none in the world. Not long ago the Archbishop of this ancient and learned city took it into his venerable head that the Faculty of Medicine were teaching some things, which, to say the least, were theologically debateable and therefore required his arch-episcopal attention forthwith. Among the possible heresies detected by the prelate was the teaching of the operation of craniotomy and the necessity of resorting to it under certain conditions and emergencies. "Here" said he "is the question of taking human life and therefore a question of the salvation or damnation of the human soul; *ergo*, this matter belongs purely to the church, and must no longer be left to the decision of these semi-infidels of doctors."

And forthwith the good old man formulated a question to be submitted to the Holy Roman Inquisition as follows:

"Whether it is lawful to teach the operation known as craniotomy; and that is to say upon the following conditions to wit: when the operation is performed the mother's life may be saved, and the child's destroyed, but when it is not performed both mother and child must perish."

It was not long before the Congregazione del Santo Uffizio made reply through Cardinal Monaco to the effect that having sedulously and with prayer thought upon the question propounded and having read all that the learned men have written thereon, it was the unanimous opinion of the Congregation of the Holy Office that the operation called craniotomy *could not lawfully be taught*. In this opinion the Holy Father concurred and so now it is definitely settled that no Catholic surgeon may perform craniotomy without laying himself liable to the anathemas of the church.

Again: in the *Gazette des Hôpitaux* for April 23rd, there are the histories of two cases of uncontrollable vomiting of pregnancy which was allowed in each instance to continue until death re-

lieved the poor sufferer. The physician who made the reports, Dr. E. Sonrier, in his diary of the progress of the cases, when he sees the end is nigh exclaims "O! what *am* I to do? On the one hand is this poor woman who implores me not to let her die; on the other stands my priest who repeats to me continually *Non occides!* (thou shalt not kill.) "Doubt paralysis my will. I will wait yet a little longer." He waited and the poor creature died of exhaustion.

These cases were both in France but the interdiction of the Church to the faithful applies as rigidly in America or in Asia as in the bosom of the "oldest and best beloved daughter of the church." And yet we doubt if any intelligent Catholic physician or surgeon, practicing in this country to-day would hesitate a moment as to what he would do in either of the above dilemmas. If he did he should be indicted for homicide, or the grossest of criminal malpractice.

F. L. J.

TOLERANCE OF OPIUM.

The tolerance of certain toxic principles and notably that of opium, superinduced by habitude, has again been most forcibly illustrated in the case of the eminent French savant, physician and politician, Dr. Charles des Etangs recently decedent at Versailles at the advanced age of 80 years. For more than half a century, Dr. des Etangs used the drug to an extent, which, as long ago as 1863, enabled him to take with impunity at one single dose 100 grammes (= 1543 grains or 3½ ounces)! As the natural tendency in such cases is generally, though by no means always, to a gradual increase of the dosage required to keep the user stimulated, he probably was able before he died to assimilate a much larger quantity than even this incredible amount. The writer is acquainted with the history of a case where a constant daily dosage of five grains of morphia has been maintained for twenty-two years, the habituté, taking this dose in two installments of 2½ grains each, on arising in the morning and on

going to his 5 o'clock dinner. His most intimate friends do not suspect him of the habit and there is no man in the range of the writer's acquaintance who is apparently more sound and healthy, or does more hard work, both mental and physical.

F. L J.

HIGHER MEDICAL EDUCATION.

The Illinois State Board of Health, with its accustomed promptness and decisiveness of action, has passed the preamble and resolutions which will be found below. If the Board succeeds in forcing the Medical Colleges to conform to this law they will have accomplished a great good, and it is to be hoped that other State Boards of Health will follow the example set by this, the best board in the United States :

OFFICE OF THE SECRETARY, SPRINGFIELD, May 4, 1885.

DOCTOR :

At the regular monthly meeting of the Illinois State Board of Health, held in the city of Chicago, April 16-17, 1885, the following preamble and resolutions were unanimously adopted :

CONCERNING MEDICAL EDUCATION.

WHEREAS, Many medical colleges do publicly announce that an entrance examination of candidates for admission to their lecture courses will be exacted, and do honestly and impartially enforce such examination ; while, on the other hand, a number of schools either avoid making such announcement; or evade the practical enforcement of any requirement of general education preliminary to the study of medicine ; and

WHEREAS, These conflicting practices result in lowering the standard of medical education by attracting to schools a certain class of students who are poorly prepared for the study of medicine ; therefore, be it

Resolved, That, in order to secure the recognition of its diplomas as in good standing for the purposes of the Medical-Practice Act in this State, it is necessary that each college shall distinctly state in its annual announcement that the conditions of admissions to its classes are: 1. Credible certificates of good moral character. 2. Diploma of graduation from a good literary and scientific college or high school, or a first-grade teacher's certificate. Or, lacking this, a thorough examination in the branches of a good English education, including mathematics, English composition, and elementary physics or natural philosophy.

Resolved, That the Secretary of the Board be, and hereby is, instructed to furnish a copy of the foregoing preamble and resolution to the Dean or Secretary of every medical college, and to the editors of medical journals, in the United States.

* * * * * *

Resolved, That since the publication of the names and addresses of matriculutes is desirable for purposes of information, the Secretary be authorized to request of all colleges desirous of being accounted in good standing in this State, that they publish in their successful annual announcements complete lists of the matriculates, as well as of the graduates, of each immediately preceding session.

Very respectfully,

JOHN H. RAUCH, M.D.,
Secretary.

A STATISTICAL REVIEW OF THE OPERATIVE MEASURES DEVISED FOR THE RELIEF OF PYLORIC STENOSIS.—But few of the ills to which humanity has fallen heir are attended with more distressing symytoms than those produced by stenosis of the pyloric orifice, from any cause whatever, and in but few has the prognosis been so absolutely hopeless. Until within the past six years the condition was regarded as beyond the domain of surgical interference, and with the diagnosis "stenosis of the pyloris," the fate of the patient was irrevocably sealed. Internal medicine offers absolutely no hope to the unfortunate sufferer from pyloric stenosis, until Péan, in 1879, performed pylorectomy for the relief of pyloric disease, and ushered in a new era in abdominal surgery.

DR. Randolph Winslow, of Baltimore, in a scholarly and very able paper, published in *The American Journal of the Medical Sciences* for April, 1885, has collected and analyzed all the recorded cases, 85 in number, of operative interference for the relief of pyloric disease. He fully discusses the technique of the different procedures, and presents the following valuable deductions:—

1st. In cancer of stomach not producing stenosis, anodynes, should be given in quantities sufficient to relieve distress and no operation should be performed.

2d. Pylorectomy for carcinoma is followed by 76 *per cent.* mortality, hence it should only be very exceptionally performed in those cases where, with marked stenosis, the pylorus is not

adherent to the neighboring organs, and the patient is young and fairly strong.

3d. In other cases of carcinomatous stenosis, as only very temporary benefit can be obtained, gastro-enterostomy should be performed.

4th. In cicatricial stenosis digatal divulsion should be performed, but if this is impossible owing to great thickening of the walls, resection in those who are well nourished, and gastro-enterostomy in the the debilitated will both be followed by good results.

5th. Hæmorrhage or perforation from ulcer or other cause than stenosis, does not present indications for pylorectomy.

6th. Duodenostomy, gastrostomy for the passage of a tube, and complete gastrectomy should all be replaced by gastro-enterostomy.

SCARLATINA.

Dr. J. P. Matthews, of Carlinville Ill., in his "Report on the Diseases of Children," before the *Illinois State Medical Society*, says that his observations have lead him to believe that SCARLITINA originates *de novo*, or is evolved from some germ, and is propagated in favorable atmospheric or meteoric conditions.

The following is his method of managing this disease:

"The treatment generally pursued is plenty of fresh air. Cool the surface, if the temperature runs high, by frequently sponging with dilute *cider* vinegar, and give drop doses of aconite tincture every hour. Anoint the surface, after sponging, with carbolized vaseline to allay the itching. The throat is sprayed with the following antiseptic mixture, using one of Rumbold's spray producers. This form of spray producer is used because the material can be used hot while it is sprayed:

℞ Acid carbolic ..... ℥j.
Potas. chlorat..... ℥j.
Fl. extr. pinus canadensis..... ℥ij.
Glycerini, pur..... ℥ss.
Aqua ferv. q. s. ad..... ℥iv.

Mix. Dissolve the potas. in the hot water before adding the other ingredients. This prescription is also used as a gargle or with a soft swab.

"The following prescription is given throughout the disease to prevent the secondary septic infection, so frequently the cause of death where the throat is much involved:

℞ Tinc. ferri chlorid..... ℥ss.
Potat. chlorat..... ℥j.
Glycerini..... ℥j.
Elixir simpl..... ℥iss.

Mix. S. Dose, a teaspoonful every two or three hours.

"Some one of the preparations of bark is usually needed. The throat wash is used not only for its beneficial effect upon the pharyngeal inflammation, but to prevent the absorption of ichor from the ulcerating tonsils, which, as hitherto mentioned, is regarded as the most dangerous result of the disease. It is also for this reason that the tincture of iron is given. Not that the tincture has any specific effect upon the disease itself,—which I do not think has a tendency to destroy life *per se*,—but for its effect upon the blood and lymphatics in preventing the ichorrhæmia. It is given for the same reason that a surgeon would give it prior to performing a grave surgical operation. Not as a germicide, but to prevent germ propagation."

PROPHYLACTIC OF SMALL-POX.

The following clipping, from the *London Weekly Times*, was furnished us by a friend. It is interesting to note that the Chinese, though unscientific, yet are seemingly abrest of their more educated brethren in some respects.

A Traveler in Great Tibet, while exploring the Trans-Himalayon explores of the Survey of India say: Turning westward we passed through Lithany, one of the highest cities of the world, its altitude being 13.300 feet, or about that of Potosi.

Small-pox was prevalent in Lithany district, for protection against which a kind of snuff, prepared from the dried pustules of small-pox patients, was being administered by the Chinese physicians. This had the same effect as inoculation, inducing a mild form of the disease, but protecting the snuff taken from the severer form which exists during an epidemic.

TRANSLATIONS FROM THE FRENCH.

CONGRESS OF FRENCH SURGEONS.

GASTROSTOMY, CHOLECYSTOTOMY, ERYSIPELAS, etc.

GASTROSTOMY.—At the Congress of French surgeons held in Paris on the 10th ult., M. Second presented a young woman upon whom he had performed gastrostomy. The operation was rendered necessary by a stricture of the œsophagus in consequence of the cicatrization of a scrofulous ulcer. After all other methods of alimentation had failed and the stricture had become impassible by even the smallest of tubes or bougies, the operation was determined upon. M. Second in operating followed the lines laid down by Labbé, and, to use his own language, "arrived not

at the stomach but upon the transverse colon which he opened, thinking it was the stomach. Discovering his error, he closed the wound in the colon and sought the stomach, sutured it and opened it at the one séance, not being a partisan of the operation in two séances. The results were most favorable, the girl recoving rapidly and perfectly. She now takes alimentation by the artificial gastric aperture. M. Second attributes the error in this case and the opening of the colon to having followed too rigorously and blindly the operative precepts of M. Labbé, and says that the only true point of departure in such cases should be the margin of the liver.

In the discussion which ensued, M. Lagrange, alluding to the operation of gastrostomy in cases of cancer of the œsophagus said, that after performing the operation quite a number of times without success, he had come to the conclusion that in all such cases gastrostomy was not only useless but dangerous and shortened the life of the patient. In those cases where patients had survived it for any length of time he was convinced they would have done so had the operation not been performed.

CHOLECYSTOTOMY.—M. Jules Boeckel of Strasburg read a paper on this operation as applied to the treatment of biliary calculi. His conclusions, as condensed, are as follows:

I. The necessity for the operation depends upon the presence or absence of biliary fistula. Where the presence of fistula had demonstrated or caused the suspicion of the existence of one or more calculi, the necessity for operation was imminent.

II. While a cure sometimes occurs spontaneously in such cases, timely operation is always to be recommended.

III. Prompt operative intervention assures a prompt cure by avoiding accidents due to the incessant flow of bile.

IV. The operation is one of great simplicity and remarkably free from bad sequelæ—thanks to the adherances which unite the organ to the abdominal parietes. Even when there is a neces-

sity of opening the peritoneum the danger is no longer great—and for this thanks to antiseptic methods.

In the second case, where there is no fistula and no adhesion, the operation becomes infinitely more grave, and the indications are more involved.

I. Above all things there should be no doubt or error in establishing the diagnosis of the cause of the obstruction of the biliary viæ, and making sure of the presence of calculi.

II. When the history of the case and its progress, a careful examination of the parts, and especially when the presence of a biliary tumor has been demonstrated by explorative puncture, operation is demanded.

III. When the diagnosis is complete no time should be lost in operating. It should be done immediately, as grave, even fatal accidents may occur in consequence of delay.

IV. Under all other circumstances the operation is a grave one, and its results too uncertain to warrant the exposure of the patient to the risks.

V. In the present state of our knowledge it is impossible to say whether resort should be had to cholecystotomy or to cholecystectomy. The result of further investigations and operations must establish this doubtful question.

This paper was followed by one on the same subject by M. Thiriar of Brussels whose conclusions are very similar to the above, but taking positive grounds in favor of cholecystectomy or extirpation of the gall bladder as against cholecystotomy. Of seven extirpations made since 1882, five have resulted in the complete cure of the patients.

TREATMENT OF ERYSIPELAS.—M. Royer reported that he had obtained most excellent effects from a concentrated solution of silver nitrate (15 grams of silver to 10 grams of water) topically applied. The results were especially good in phlegmonous traumatic erysipelas.

PERIPHERIC IRRITATION.—At the séance of March 28th of the

Société de Biologie, Dr. Brown Séquard, in speaking on this subject said, that when an irritant body is applied to the skin the resultant contraction does not take place solely on the vessels. Up to the present time the theory has obtained that pain in such cases was due to the intensity of the revulsion. That it is not so is proven, said the doctor, by the following: a man affected with double hydrarthrosis was treated on one side by large and deep and on the other by extremely fine and light applications of the actual cautery. The former caused great pain and the latter scarcely any, but the latter worked a cure much more rapidly than the former—a fact which proves that pain is not indicative of curative action.

F. L. J.

VAGINAL CALCULUS.—*The Centralblatt f. Gynäkologie* tells of a large vaginal calculus, size of a goose egg, which was removed by forceps. It was formed around a wooden pessary which had been *in situ* for ten years.

ABSCENCE OF VAGINA, UTERUS AND OVARIES.—Dr. H. J. Garrignes, in the *Am. Jour. of Obstetrics*, reports a case of a lack of vagina, uterus and ovaries in a well-formed woman.

VAGINAL DOUCHE.—Dr. Z. B. Adams, in the *Obstetric Gazette* says of the Routine use of the Vaginal Douche, in Normal Chilbed: "It is artificial; it is of doubtful utility, and it may be hurtful and even fatal."

THE VOICE.—A correspondent, in the *Med. Times*, gives the following as being recommended by Dr. Sandras for the voice.

℞. Essence of Turpentine,.....100 grms.
Norway Tar,.....20 grms.
Chloroform,.....1 grm.

Used by inhilation. After its use for a time, it was noticed that the voice became extremely pure and possessed a remarkable volume.

ARTICLE LXVIII.

Department of Dermatology and Syphilis.

CONDUCTED BY

A. H. OHMANN-DUMESNIL, A.M., M.D., Professor of Dermatology and Syphilis, St. Louis College of Physicians and Surgeons, of St. Louis.

THE GELATINE PREPARATIONS IN SKIN DISEASES.—Dr. D. F. Kinnier has a very interesting paper on the "Treatment of Psoriasis" in the *New England Medical Monthly*. Among other things, he gives the method of preparing the gelatine preparations devised and recommended by Professor Pick, of Prague. The method, in brief, is as follows: Dissolve ʒxijss of dry white gelatine in ʒxxv of distilled water, by means of a water bath, and while stirring it add your medicament, chrysarobin, pyrogallic acid, naphthol, iodoform, carbolic or salicylic acids in the desired quantity. It is then allowed to cool and the cake will take on the form of the vessel in which it was prepared. The patient is then directed to take the necessary quantity, place it in a china saucer, and when in a fluid state, apply to the parts with a brush. This method is far superior to ointments in some respects, although inferior in others to the traumaticin method.

IODIDE OF POTASSIUM IN ECZEMA.—Dr. Henry W. Stelwagon contributes a short note on this subject to the *Medical News*. He has had as yet but a limited experience with this drug in eczema, and, of course, his results cannot be regarded as conclusive. They are sufficiently so, however, to merit consideration and as no harm can result from the use of the medicine it should be employed in such cases where it is indicated. Dr. S. regards it as of greatest advantage in subacute and chronic eczema, in which the inflammation is of a moderate grade. Besides this, it seems to have a greater influence in the eczema occurring in persons otherwise apparently in good health. He thinks that if a positive conclusion were warrantable, it would be to the effect that the remedy finds its greatest use in those cases in which such

tonics as cod-oil, iron and bark are contra-indicated. It will aggravate in broken down subjects where worry, overwork or dyspepsia seem to act as causes. It also has but little influence in eczema of the lower extremities due partly to varicose veins. Its use is not confined to adults but will prove highly serviceable, at times, in obstinate cases of infantile eczema.

SKIN AFFECTIONS DUE TO TEMPERATURE VARIATIONS IN COLD WEATHER.—The Chicago *Medical Journal and Examiner* publishes a very interesting paper on this subject by Dr. J. Nevins Hyde. Pruritus hiemalis is first discussed, attention being called to the fact that the secondary lesions produced by scratching, are marked and easily appreciated. The papular variety of eczema is another trouble due largely to sudden variations in winter temperature and the author draws a lively clinical picture of the cases observed, such as we may see here. Chronic urticaria and furuncles are other affections which seem to increase whenever we are visited by "cold waves" from the North. Following this we have a discussion relative to the diagnosis and etiology of the many so-called cases of "itch" which seems to take on an epidemic form in various sections of the country. There is no doubt whatever that the majority of these cases are not scabies, but different forms of reflex dermatoses due to the action of the changes in the temperature.

CURE OF A CASE OF LUPUS ERYTHEMATOSUS.—Cases of the cure of this disease are rare and, on that account, the narrative of such a case by such a high authority as Jonathan Hutchinson acquires double value. He reports such an one in the *British Medical Journal*. He first saw the patient in March 1881. He had patches on each side of his nose, about its middle. There was a third near its ridge but the three did not coalesce. The circulation was quite feeble. The patches at that time had existed about a year. He was prescribed arsenic internally and a weak lotion of tar and lead as a local application. In Feb., 1885 the patient called to show that he was well. White, thin, inconspicuous scars took the place of the former patches and there was neither thickening nor erythema at their edges. On the scalp, which was nearly bald, there were several other scars as big as the end of one's thumb, which were the remains of other patches that had developed since his first visit. He took arsenic

internally in full doses, and from the fact that the external application was changed at times and that the lesions were symmetrical Mr. Hutchinson concludes that the disease is rather of a constitutional than of a local origin and, as such, implies the probable need of internal remedies.

TREATMENT OF RINGWORM OF THE SCALP.—Dr. James Foulis gives the following in the *British Medical Journal* as a rapid and effective method: Cut the hair short all around the affected part, tie a towel around the forehead, so that fluids poured on the head will not run into the eyes. Spirits of turpentine is then freely poured over the spots, being rubbed into the scalp with the forefinger. The dirt and greasy scabs will disappear, wash well with a 10 *per cent.* carbolic acid soap and the scalp will appear beautifully clean. Dry the head well with a towel and paint the affected parts with tincture of iodine. As soon as dry some carbolized oil (1 in 20) is rubbed all through the hair to catch whatever spores may be there. This treatment applied every morning and night for a week, will generally cure the worst cases in the course of a week. The great advantage of this method is that it causes but little or no distress and may be applied to the head of the youngest child.

HEREDITY OF ACNE.—As a supplement to the paper published in the present number on the Relations of Skin Diseases to Marriage, we take the following on the heredity of acne from *Gaillard's Medical Journal*, which publishes the chapter on the etiology of acne from advance sheets of the work on Acne by Dr. Bulkley. The author states that out of 879 patients, there were 119 who had one or more brothers and sisters affected with acne, and 44 whose parents, one or both, had suffered from rheumatism, etc. He further says that although there is little to prove that acne is hereditary to any degree, much can be found to show that certain dyscrasic conditions, or states of constitution in families, rather tend to the eruption at one time or another. This is especially true in reference to the strumous state or inheritance, and also in rheumatism and gout, and it appears that those to whom these conditions are transmitted with any force are peculiarly liable to sebaceous affections.

THE TREATMENT OF SECONDARY SYPHILIS.—A. Bernard, Sur-

geon to the Liverpool Lock Hospital, writes a short note to the *Medical Press and Circular* in which he advocates the early use of mercury in small doses. The use of mercurial fumigations, by means of the vapor bath, for papular eruptions and lesions of the mouth, he looks upon as desirable. In some cases, such as obstinate squamous eruptions, iodide of potassium administered in conjunction with the mercury is of benefit. Another mode of treatment, unfortunately objected to by private patients, is found in mercurial inunctions. It is the remedy *par excellance* for infantile syphilis. For local applications to lesions of the month a spray medicated with tincture of iodine (1 in 32) is highly prized in the hospital; and a mixture of finely pulverized iodoform and starch is very soothing to the painful ulcerations of the tonsils and soft palate.

EXTRA-GENITAL CHANCRES.—Dr. Morris H. Henry speaks of the clinical detection and treatment of chancres in anomalous situations and among other things says that he is inclined to believe that extra-genital chancres are met with less frequently in this country than in continental Europe. He claims that this is doubtless due to the more cleanly habits and circumstances of our own people. The sexual habits of the people who furnish the largest numbers of these anomalous cases, the unnatural methods of sexual indulgence, will account for the unusual localities in which chancres are found. *Per contra* Dr. E. H. Holmes reports in the Chicago *Medical Journal and Examiner* three cases of chancre of the eyelid, one of them involving the caruncles. Cases are being continually reported in this country, of extra-genital chancres and unnatural methods of sexual indulgence are sufficiently indulged in, to warrant the prediction that we will soon rival continental Europe in the number of these cases, if such practices give rise to anomalous positions of the initial lesion of syphilis.

MOOTED POINTS IN SYPHILOLOGY.—Dr. E. L. Keyes records some interesting cases in the New York *Medical Journal*. The first bears upon excision of the syphilitic chancre as a means of prevention. He saw the papule 24 hours after its appearance and excised it thoroughly, taking away a generous amount of the surrounding tissues. The suspected person was seen and she had a syphilitic eruption. On the sixty-second day the wound had

healed by first intention. After three or four days of premonitory fever, a mild roseola appeared and rapidly left. Two weeks later there was a profuse general papular syphilide, the hair was falling out and scabs in the scalp. No treatment had been given and it plainly indicated the futility of excising the primary lesion even under unusually favorable conditions. The large number of cases published all point to the same conclusion. Whenever it is definitely established that the lesion is a true syphilitic one, excision proves entirely valueless.

Dr. Keyes gives drawings representing the teeth in a case of inherited syphilis and those in one of the acquired form. In the latter they are so similar that they would be taken, at first sight, as types of the Hutchinsonian teeth. The case is interesting as illustrating the fact that teeth very closely if not identically resembling the test teeth of Hutchinson may be possessed by a patient who has not inherited the disease.

SYPHILITIC GUMMATA OF THE LARYNX.—Dr. Latonphis contributes a short, interesting article on the above to *Paris Médical*. He notes that gummata are either superficial or deep and that there are four periods: formative, softening, ulcerative and repair. The first period is characterized by hoarseness, slight pain, redness and slight indurated points. In the second period we have, in addition, engorgement of the cervico-maxillary ganglia and the development of the germs. In the third period there is a doughiness of the neck, pain increased on pressure and by deglutition, roughness of voice and aphonia. In the fourth period we have cicatrices and all the functional disturbances which accompany their formation and presence. During the first two periods there is no danger and the absorption of the gummata may be accomplished with little trouble. In the ulcerative stage, however, the situation becomes very grave, not only on account of the œdema which presents itself but by reason of stenosis following cicatricial contraction.

ARTICLE LXIX.

Department of Microscopy.

CONDUCTED BY

FRANK L. JAMES Ph. D., M. D., President St. Louis Society of Microscopists, of St. Louis.

MAGNIFYING POWERS OF EYE PIECES AND OBJECTIVES.—In reply to several inquiries from correspondents desiring a simple rule for determining the magnifying power of any combination of eye pieces and objectives, the following is condensed from an article in the *Am. Monthly Micros. Jour.* for November, 1884, from the pen of Mr. Ernst Gundlach, than whom there is no better authority.

For eye pieces. Let m = magnifying power sought, v = normal length of vision (assumed to be 10 inches,) and f = focal length of eye piece; then we have the formula

$$m = \frac{v+f}{f}.$$

Example. Suppose the eye piece to have a focal length of 2 inches; v = 10 inches; the two added together make 12 inches. This divided by 2 inches (the focal length of eye piece) = 6, which is the linear magnifying power of a 2 inch eye piece.

For objectives. Let m = magnifying power sought, v = normal length of vision and g = the focal length of the objective: then we have the formula

$$m = \frac{v-g}{g}$$

Example. Suppose the objective to have a focal length of $\frac{1}{4}$ inch; then since v is 10 inches, $v - g = 9\frac{3}{4}$ inches. This dividend by the focal length of the objective ($\frac{1}{4}$ in.) = 39 which is the magnifying power of the objective.

The combination. Since the eye piece magnifies the image made by the objective, all that we have to do to obtain the magnifying power of any given combination is to calculate the magnifying power of each separately and multiply one result by the other. Thus the formula would be

$$M = \frac{v+f}{f} \times \frac{v-g}{g}$$

M being the linear magnifying power of the instrument with eyepiece and objective complete.

Example. What is the magnifying power of an instrument with the draw tube closed (normal length 10″) a 2 inch eye piece and a quarter inch objective. The eye piece magnifies 6 times and the objective 39 times; $6 \times 39 = 234$ which is the linear magnifying power of the combination.

MICROBES OF ERYSIPELAS IN THE KIDNEY.—M. Cornil in examining the urine of a patient suffering with infectious nephritis found the microbes of erysipelas. He called attention to the fact at the time at a meeting of the Societé de Médecine de Paris, and more recently he presented a kidney of the same patient obtained at the autopsy. Microscopical examination of sections from the specimen showed certain capillaries entirely filled with the microbes arranged in chains. None were found in the tubules, but a syringeful of fluid drawn from one of the lungs of the subject immediately after death contained them in great numbers.

THE CAUSE OF RHINOSCLEROMA—A NEW BACTERIUM.—M. M. Cornil and Alvarez presented to the Académie de Médecine (séance of March 31) slides prepared from a case of rhinoscleroma, with the remarks of which the following is an abstract:

"The disease," said M. Cornil, "is one whose name is as hard as the tissue which composes it—rhinoscleroma—but little known in France, though it has been accurately described by Hebra, Kapposi and others. It consists of a thickening in the shape of plates and tumors, which attacks the nasal cavity, the upper lip, the nostrils, the fossæ and extends to the neighboring parts—the lower lip, pharynx and larynx, producing stenosis of the latter organs which frequently necessitates tracheotomy. Its evolution is slow, and it differs absolutely in symptoms, lesions and amnity to treatment from syphilis or the syphilides. The existence of a pathogonetic organism in this disease has been suspected and investigated by Pellizari Chiari, Frish and others, but no proof of the same has hitherto been discovered. The tumors are comparatively common in Central America, and M. Alvarez has had a chance to examine them frequently. The patient upon whom these investigations have been prosecuted, however, is a

young man, native of San Salvador, who was sent to Paris for treatment by Dr, Verneuil. Sections of a tumor from this individual were placed for forty-eight hours in a solution of violet (2 1-2 per cent), and afterward bleached by remaining forty-eight hours in alcohol. This treatment brought out the existence of multitudes of ovoid bodies showing a periphery of hyaline matter which appeared to environ them like a capsule. The body is formed of three or four round or ovoid grains surrounded with a transparent line—the bodies being strongly colored a violet blue. Many of these bacteria were found free in the tissues between the fibrillæ of the reticulum, others in the lymphatic vessels, both of the superficial and deeper parts of the skin.

The reaction to the violet is said to be peculiar to these bacteria, and the authors make no doubt that they have exploited the cause of rhinoscleroma.

THE VITALITY OF THE TUBERCLE BACILLUS.—In the *Annali Univ. di Medicina*, Prof. G. Sormani has recently published the results of a series of experiments conducted by him with the view of determining the vitality of the bacillus of tubercle under varying conditions, more especially when subjected (1) to artificial digestion; (2), to the temperature of boiling water; (3), to prolonged maceration; (4), to dessication. The following is a brief resumé of the more important results:

Artificial Digestion—The digestive fluid used was the gastric juice of pigs freshly slaughtered for the purpose, and which had been kept without food for two days prior to killing. While it was found that the process of digestion not only destroyed the vitality but the identity of form of the bacillus, it was shown that this result was attained only after prolonged digestion, the bacillus yielding only after everything else had been digested. This fact is of the highest importance as explanatory of the comparative frequency of intestinal tuberculosis in childhood as compared with this condition in adult age—the digestive faculty of children being comparatively weak. It is also explanatory of the frequency of tubercular ulceration, mesenteric abscessess and fistulæ of the rectum in adult tuberculous patients. The stomachs of this class being generally catarrhal and consequently of weak digestive energy, allow the bacilli swallowed with the saliva and food to pass through unaffected by the process of

digestion. Passing through the smaller and larger intestine the microbes find lodgment in the rectum and there produce the lesions alluded to.

Affects of Heat—As milk is most frequently the medium of introduction of bacilli into the system, this fluid was used for the experiments. It was first sterilized and was then mixed with a quantity of highly infective bacilliferous sputum. The first inoculation was made with the milk after it had been kept for ten minutes in a water bath at the temperature of 158° F.; the second was after ten minutes further heating at a temperature of 178° F.; the third after a still further exposure of ten minures to a temperature of 196° F., and the fourth series of inoculations were made after boiling the fluid for five minutes. At the end of six weeks the animals were killed and examined. Of those inoculated with the milk before it had reached the boiling point every one showed tuberculous infection. Those inoculated with the milk after boiling were found healthy. Further experiments showed that while a short exposure to a comparatively low heat does not destroy the virulence of the bacillus, an exposure of an hour to a temperature of 149° F. or even of 141° F, rendered them inert.

Maceration—Water was the medium chosen, the temperature not being regulated but allowed to fluctuate with the seasons. After being sterilized by boiling, it was infected by an admixture of tuberculous sputum. At the end of 110 days it was examined with a microscope and the bacilli found distributed throughout the water near the bottom. They had not multiplied, but were living. At the end of one year they could still be detected at the bottom of the fluid, but injections of the water gave rise to no infection. [This series of experiments is not so complete or satisfactory as the balance. The water being kept in a closed vessel the hydrosulphuric acid which had formed in it probably killed the bacilli by prolonged contact—a result suggested by the author.]

Dessication—A piece of linen was smeared with bacilliferous sputum and allowed to dry at the natural temperature. It was kept thoroughly dry, and after twenty-five days an inoculation was made with it. In two months a purulent wound appeared at the site of inoculation, and the animal was killed. Both lungs were found to be filled with small greyish yellow tubercules in vast numbers. Animals inoculated at the end of

three and six months were not infected. The importance of this series of experiments in view of the manner in which tuberculous patients so frequently dispose of their sputum (in towels, handkerchiefs, etc.) is very great, and shows the necessity of disinfection. It is recommended that these articles be placed in a five *per cent.* solution of carbolic acid before sending them to the laundry.

ARTICLE LXX.

Proceedings of Medical Societies.

ST. LOUIS MEDICAL SOCIETY.

Taken by the JOURNAL'S Stenographic Reporter.

Prepared by the Publication Committee of the Society.

SATURDAY, April 4, 1885.

DR. ATWOOD, President, in the Chair.

Abnormal Sacrum.

DR. MOONEY presented to the Society a sacrum, containing six bones.

DR. OHMANN-DUMESNIL read a paper on "The Relations of Skin Diseases to Marriage. (See page 372.)

Diphtheria.

DR. A. GREEN.—During the discussion of the subject of diphtheria at the last meeting in speaking of the special characteristics of diphtheria and croup I quoted Professor Rindfleisch, who says that in mucous membrane of the respiratory tract there is a basement-membrane and in the alimentary tract there is none; and a gentleman here stated that I was mistaken: at least I did not understand whether he said I was mistaken or Prof. Rindfleisch was mistaken.

DR. DEAN.—He said that Prof. Rindfleisch was mistaken.

DR. A. GREEN.—Well in that case I need not say anything further about the matter. I have here, however, a work by Henle, who says he does not agree with Rindfleisch in the statement that basement-membrane is only met with in ciliary

and not in pavement epithelium. He also says that the false membrane in what we call pharyngeal diphtheria and what we call croup adheres differently; that in diphtheria the membrane penetrates further and it takes days before it is loosened, which is not the case in laryngeal croup, and the difference occurs because there is no basement-membrane, and in the larynx and trachea there is a basement-membrane, and the smoothness of the parts does not permit it to adhere too firmly. Henle says that the basement-membrane is only found in certain regions and even in these we do not find it constantly; but we find it sometimes just as well in the pavement epithelium as in the ciliary epithelium. He has never missed the basement-membrane in the trachea. In the conjunctiva of the cornea it is as often present as it is absent; but concerning the digestive mucous membrane he says it is doubtful, and he thinks he is justified in saying that it is hardly ever found in the digestive mucous membrane.

DR. BREMER.—I stated at the last meeting in substance that there is not only a basement-membrane in the respiratory passages but also strictly speaking in all the mucous membranes in the body. Wherever there is a mucous membrane there is also a basement-membrane. It is very distinct in the trachea, in a portion of the larynx, and in the cornea, but it is also met with —though not of such thickness and distinctness—where there is a mucous membrane. It is the membrane upon which the epithelium is implanted.

DR. A. GREEN.—Henle says the basement-membrane is very inconstant in its nature; that it is only found in special regions and sometimes it is absent even there. He never missed it in the trachea and concerning the conjunctiva of the cornea it is as often absent as it is present, and respecting the digestive mucous membrane its presence is a disputed point. He says in his remarks that he thinks he is justified in saying, after many examinations, that he could not find any basement-membrane in the digestive mucous tract.

DR. BREMER.—This is a matter of individual observation, and the question can be settled only in this way: that Dr. Green bring his specimens and I bring mine, and then we compare them under the microscope. I have seen basement-membrane in the mucous-membrane of the intestinal tract, although Henle says it is a question in dispute. The presence or seeming absence

depends on the method of preparing the specimen. The basement membrane in the intestinal tract is not so distinct as in the trachea or in the cornea, but it is certainly present.

Dr. Johnston.—I would like to ask Dr. Bremer if in the judgment of the German observers, diphtheria and croup are one and the same disease or are they distinct diseases?

Dr. Bremer.—Etiologically there is a difference between membranous croup and diphtheria; that is to say, the same causes may produce croup that will produce diphtheria. Whenever the pseudo-membranes are situated in the pharynx and on the palate and on the tonsils we call it diphtheria. If it is situated lower down in the trachea and in the larynx we speak about it as croup. Anatomically there is at the present day generally this difference made: the croupous exudation takes place on the surface of the epithelium; it is a process of transudation from the vessels and emigration of cells, and as soon as these two come in contact with the air the mass is changed chemically and coagulates. After it is thrown off there is no loss of substance, the subjacent epithelium is not, or only slightly altered, but in dipththeria, according to Virchow, there is always necessarily a loss of substance. It destroys the epithelium, implicates the basement-membrane and sub-mucosa and sometimes connective tissue underlying this sub-mucosa. A scab is formed instead of the pseudo-membrane. It is made of necrossed tissue, due to coagulation-necrosis. Coagulation-necrosis never takes place, it is asserted, in croup, but only in diphtheria, so the latter is not an exudate but a necrotic process in contradistinction to croup, which is distinctly an exudative process.

Dr. Johnston.—Now in relation to the contagiousness of the disease, do you hold that diphtheria is contagious?

Dr. Bremer.—I think diphtheria to be contagious. We know that croup in itself does not exactly constitute a disease proper; it is a symptom of a great many diseases, for instance, in measles and variola we have laryngeal croup. Then there are croupous membranes formed sometimes by traumatism, especially in the adult. There is even at the present day a great deal of confusion with regard to croup and diphtheria and the line of distinction cannot always be distinctly drawn.

Dr. Dean.—I think the point at issue was just this: I stated that the diphtheritic process occurred mostly in the pavement epithelial cells of the respiratory tube and not in those of the

alimentary tube at and near their crossing. Dr. Green in addition stated that Rindfleisch made the distinction with reference to the basement-membrane, those parts not having basement-membrane being differently attacked from the other. Dr. Bremer was justified in saying that wherever there is epithelial cells there is basement-membrane.

DR. MUDD.—I want to ask Dr. Bremer whether the diphtheritic process beginning in the pharynx and the disease accompanying it extending into the trachea is a part of the same process, whether the membrane which is usually found in the trachea is associated with diphtheritic laryngitis and the diphtheritic membrane which is found in croup are the same; they certainly differ very materially under the miscroscope.

DR. BREMER.—Whenever the diphtheritic process goes down into the trachea, croup is superadded to the diphtheria, and the disease which is produced in the stratified epithelium of the pharynx, of the tonsils or of the palate, that disease which produces there a diphtheritic scab, will produce in the columnar epithelium of the trachea, not a scab, but a true membrane; there is no coagulation-necrosis.

DR. MUDD.—Then the croupous membrane is just the same as the diphtheritic membrane?

DR. BREMER.—Anatomically it is the same as the membrane in the so-called true crop, but pathologenetically it is different; in the trachea two distinct poisons would produce the same histological lesion.

DR. JOHNSTON.—When you use the words "two distinct poisons" do you mean one croupous and the other diphtheritic poison?

DR. BREMER.—Take this instance: In measles we sometimes see a very distinct croup. Now here it is the poison of measles, the measle microbe, if there is such a thing, which produces this peculiar lesion in the larynx; whereas, in the true membranous croup, making the same symptoms and producing the same pathological changes in the throat, the cause is quite different.

DR. MUDD.—I would like to ask Dr. Dean if I understood him to say that in diphtheria the membrane does not occur on the posterior wall of the pharynx, on that portion which may be considered as a part of the road to the stomach, just at the

arches of the palate and below the upper part of the pharynx, whether in that portion the membrane is not found?

DR. DEAN.—I meant to say that in all parts of the pharynx, at the crossing of the respiratory tube, the true diphtheritic membrane may occur, the coagulation-necrosis, as the doctor calls it, and wherever there is coagulation-necrosis there is an abundance of diphtheritic micrococci; but in that portion of the pharynx that does not belong at all to the respiratory tube, that portion immediately back of the larynx, behind the larynx, there no diphtheritic membrane is found, and then the membrane which is formed lower down in the trachea usually is thick and does not contain micrococci as in the true diphtheritic membrane.

DR. MUDD.—Then I understand that the only part that is exempt from the diphtheritic process is that segment which is just behind the cricoid cartilage?

DR. DEAN.—The whole larynx between the cricoid process and the upper border?

DR. MUDD.—That would come up as high as the arytenoid cartilage. I would like to ask Dr. Gregory whether he has ever seen diphtheritic membrane on that part of the pharynx?

DR. GREGORY.—I cannot recall to my mind that I ever have.

SATURDAY, April 11th, 1885.

DR. ATWOOD, President, in the chair.

Spindle-celled Sarcoma of the Lachrymal Gland.

DR. ALT.—About 7 months ago, a gentleman, 47 or 48 years old, came to see me on account of ptosis of the left lid and paralysis of the external rectus muscle. The week before he had had fever and on recovery could not lift his lids voluntarily. I could find nothing which would explain these symptoms. The only thing being a diminution of the patella tendon reflex. The diagnosis was probably cerebral syphilis. The doctor who treated him for 14 or 15 years denied this, but said that the man was addicted to excessive venery. On account of some pulmonary trouble, he was sent to Florida and afterwards returned much emanciated and with exophthalmus. Three weeks ago I saw him again, in consultation, on account of the exophthalmus, which was immense. The eyeball protruded nearly two-thirds outside, and I could only make out an enlargement of the lachrymal gland upwards and outwards. The lid was yet ptosic, and the ophthalmoscopic examination revealed atrophy of the optic nerve. I decided to operate and thought I would try to remove the tumor and preserve the eyeball. However, I could not get

behind. The eye was enucleated and I did not find a tumor of the optic nerve but one of the upper posterior part of the orbit enclosed in a connective tissue capsule, and it was with difficulty that I cut it out, in three sections. It was a spindle-celled sarcoma of the lachrymal gland. So far, well authenticated cases of tumors of the lachrymal gland of this nature have not been recorded. Although treated antiseptically, for political reasons, with bichloride of mercury, he had high fever for two days; all at once this gave way and he got very easy. There was an immense swelling of the upper eyelid which developed and progressed several days, became limited, and discharged half an eggshell full of pus. The points of interest are: first, that a tumor of the lachrmal gland should occur behind the eyeball and press it straight forward like tumors of the optic nerve; and, second, that it was a tumor of the connective tissue rather than the gland —a benigh spindle-celled sarcoma.

DR. HULBERT.—What is the prognosis?

DR. ALT.—I operated to make his last moments more endurable. If he had no other disease, this operation, which is radical, might have saved his life.

DR. POLLAK.—Where did the abscess come from?

DR. ALT.—I do not think it was a septic one, but there was after-hæmorrhage and considerable necrosis, the result of pressure.

DR. DICKINSON.—It is a remarkable fact, recently stated, that there is a separate origin for the nerves of the internal rectus. The doctor stated he did not remove the globe to save the man's life. The question often comes up as to the propriety of removing an eye when death is imminent. On account of the excessive amount of pain which may be relieved, enucleation is always indicated. It is true that we may not always be able to remove all the diseased parts, as a portion of it may extend into the cavity of the cranium beyond our reach.

DR. WILLIAMS.—It is well known that the external rectus and the lifting muscle of the lid are not involved in the same affection, so far as the brain is concerned. The third nerve is uniformly involved when the brain is the cause of the trouble, but the external rectus is never involved with the third nerve unless the brain trouble is so extensive as to include almost the entire structure. I have seen cases where the eyeball was pressed out of its socket quite a distance by inflammation and swelling of the periosteum of the bottom of the orbit. These cases get well by medication without operation. I remember one man who had a syphilitic trouble of that kind and by giving the usual medication I relieved him entirely. I have seen two cases, or rather I have seen one case and have heard the history of a second one, in which the optic nerves were converted into cysts and the eyeballs were pressed very far out of the sockets. At Cincinnati, some years ago, we operated on a little girl who had one eye pressed very far

out of the socket, straight forward, and it was impossible to tell what the nature of the trouble behind the ball was. It was enucleated and we were surprised to find that the optic nerve, from its entrance into the orbit clear down to the ball, was a very large cyst, the walls of which were about a quarter of an inch thick, so that they would not collapse when opened. Nothing would come out although full of serum or a watery substance. The optic nerve was removed afterwards and its diameter was nearly that of the eyeball. This little girl was otherwise in good health. Soon after that I saw a specimen in the hands of Dr. Hamilton of Columbus, Ohio, which was similar. He removed the eyeball and the optic nerve, the latter being converted into a cyst like the one that I mentioned. These are the only two cases of the kind that I have ever met, and they are interesting from the fact of their developing in the optic nerve proper. In both of these cases the eyeball was pushed straight forward and the inference is, that the trouble was either in the nerve itself or that it started in the back of the orbit and came forward against the bottom of the eyeball. But these theories in regard to the direction of the pressure are often unreliable. I formerly reported to the Society a case of a cyst where the eyeball was pressed very far out of the orbit. I operated afterwards and the woman has since gotten well, at least she was 12 months ago; since then I have not seen her. She lives in Little Rock, Arkansas. It is nearly three years since the operation was performed. Those cases of cysts of the orbit are extremely slow to close up, especially when they are large. This was a large one containing something like a half tea-cupful of albuminoid substance The case got well, disproving the idea of some of the gentlemen that it was malignant and would finally kill the patient. The eye has gone back into its position nearly and the sight is good. The eye was pressed out of its position so long that its new locality had almost become natural to it so it went back into its position with a little difficulty.

DR. DICKINSON.—I saw her before the doctor did and the eye was then protruded and I thought this protrusion was downwards and outwards.

DR. ALT.—The first time I saw the patient there was no other symptom than the ptosis, and the ophthalmoscope and everything else failed to reveal any other condition. The patient had not noticed anything else, nor was there the slightest exophthalmus. I do not see how anybody could assume that there was a tumor developing in the lachrymal gland. So far as I know, the only way that we could explain that form of cyst in the optic nerve would be that it was myxomatous degeneration. In these tumors we sometimes find large cavities filled with gelatinous substances but I do not recollect any cases that have been reported where the optic nerve was changed into a cyst. In these cases, of course, the exophthalmus was natural. In the cases I have re-

ported the straight forward exophthalmus was something strange.

DR. WILLIAMS.—I do not wish to critize the doctor. Of course, before the exophthalmus developed, you could not say what the nature of the trouble was, but I would have supposed that probably it was of the orbit and not in the brain.

Rheumatic Neuritis.

DR. HULBERT.—The symptom of ptosis recalls to me a case which occurred at the Female hospital. When first seen she presented no symptoms of any trouble of the eye or lids; that was about two months ago. She came in 3 or 4 days ago with ptosis of the left upper lid and and œdema of the legs. The upper lid was reddened and somewhat thickened, but there was no œdema; it looked more as if it had been inflamed. The history she gives is, that when she went out she caught cold in the eye and ever since this ptosis has existed. The upper lid comes at least half way over the ball of the eye. I have been unable to discover any kidney trouble; but there is a slight mitral murmur of the heart. I cannot detect it unless I make the patient run up and down the ward and exert herself and I can only hear it very faintly then. I would like an explanation of the ptosis. She says the eye does not pain at all but it is a little sensative to light.

DR. DICKINSON.—There might be some local pressure developed and consequent effusion; she may have taken cold.

DR. BREMER.—It seems to me one of rheumatic affection of the third nerve. We find very frequently a paralysis of the seventh nerve as the result of rheumatic neuritis, and this probably is a case of the same kind.

Traumatic Aneurism of the Carotid.

DR. HREWITT.—I met with a case of traumatic aneurism of the internal carotid artery. Since then, I have had another case of aneurism in the carotid foramen in a young colored women who was shot by her husband, whilst he was standing close to and in front of her. The ball, a 32 calibre, struck the malar bone just a little below the zygomatic process, passed back and lodged somewhere and has never been found. This occurred three months ago. An aneurism developed which, when I saw her, was quite prominent externally and more so internally. The tonsil was pushed inwards until it rested against the uvula. The aneurismal sac extended up to the lobe of the ear and, if anything, behind it and down to the level of the hyoid bone. She had paralysis of the right vocal cord and a consequent hoarse voice and she complained more or less of headache. There was paralysis of the right side of the tongue, partial atrophy and loss of taste on that side. The tumor had grown so large that something had to be done as it was liable to rupture at any time. A week ago I ligated the common carotid artery just above the point where it crosses the omo-hyoid. This arrested pulsation in the tumor, but within an hour or an hour and a half I could

feel that there was a return current, although it was slight. The matter was so serious and being apprehensive that the ligation of the common carotid would not be sufficient and fearing that, if it did not prove sufficient, there would be no opportunity of doing anything again, I determined to see if it were possible to get at the artery above the sac. For that purpose I extended my incision up in front of the ear and cautiously dissected down and endeavored to get above the sac with the hope of finding some portion of the artery that could be ligated above. I dissected almost to the carotid foramen and found that the sac extended up to the base of the skull. It seemed impossible for me to reach the artery, at least that there was no portion of the artery that could be reached that was not included in the sac. I discussed the propriety of opening the sac and endeavoring to get at the other end of the artery in that way; but if I had I would not have found anything to tie except the bag itself and it was of such enormous size that it was impossible to get around, and I was compelled to desist. The woman seems to have done pretty well, although she has had very considerable fever ever since. I have treated the wound antiseptically and endeavored to effect union by first intention; there has been very much discharge. I re-dressed the wound again to-day for the first time, there was very little discharge from the drainage tube. The wound is healing up very nicely by first intention and I am at a loss to account for the high fever. A good portion of the time her appetite has been very good although she has had fever, the temperature rising as high as 102°. What will be the result it is too soon yet to determine. To-day I could detect no pulsation in the sac. I have been unable to examine it inside the mouth, as she cannot get it open. I would say that the sac rested along the angle of the jaw, the margin of the jaw, and a portion of it extended close behind the ramus and it would have required an exceedingly careful dissection to have separated it, if it could have been done at all. When first seen there seemed to be very little else than mucous membrane and the skin between my fingers and the current of blood. There has been a little bleeding to-day from one point where there was a slight ulceration about the stitchees. There had been some bleeding from the mouth and while we were dressing it she spit up considerable bloody mucus. Now if the sac were pulsating, if it were still active, I felt we might have secondary hæmorrhage at any time, but seemingly there is no pulsation in the sac. There may possibly be suppuration although I hardly think that is the case.

DR. DICKINSON.—What were the sources of pulsation, after ligation, attributed to, the circle of Willis or the internal cerebral arteries?

DR. PREWITT.—I attributed it to return current from the brain and possibly also from some of the branches of the exter-

nal carotid, but the anastomoses through the brain are very decided and active.

Cartilaginous Abdominal Tumor.

A woman came to me about 10 days ago, from Illinois, with a tumor of the abdomen supposing it to be ovarian. On examination I satisfied myself that it was not, it was a hard solid tumor, not connected with the uterus nor related to the pelvis. It was more on the left side extending from the left lumbar region to the median line, nearly down to the brim of the pelvis. There was resonance in the posterior lumbar region of the left side, and along the upper margin of the tumor in the position where it would seem we ought to have dullness, if it was connected with the spleen. The question came up whether the tumor was of the spleen, of the kidneys, or of the omentum, or mesentery, or, in fact, what its origin was. It certainly was not a tumor of the kidney because the history of the case precluded such a possibility. The woman stated she had had the tumor 15 years and I recollect the fact that I had seen her some 7 or 8 years before when she had some periostic trouble of the leg and I made an incision down to the bone. She stated I examined the tumor at this time and asked her why she didn't have it removed. And that Dr. Gregory had advised against its removal years ago. Of course, that precluded the possibility of its being malignant, no matter what the origin might be. I thought that the colon transversed the face of the tumor, and I inflated the bowel but could find no trace of it. There was a certain amount of resonance over the face of the tumor that was a little puzzling. It was a very hard tumor and, to a certain extent, movable but not freely so. It felt as though anchored some where but not firmly fixed. It was very difficult to decide what was its character. I explained to her and her husband the very great doubt connected with the growth and the dangerous character of any operation for its removal or even for its exploration, but she said she had suffered for years with it, that I could open the abdomen and explore it and if I found the condition such as to permit of its removal I could go ahead, if not, I could close up the opening. With this explanation and all the dangers presented to her, she was still anxious for the operation to be performed. On Monday I made an exploratory incision, laying open the abdomen. I found it a tumor covered with omentum and with some slight adhesions to the abdominal wall. Displacing the omentum and inserting my finger around the margin of the tumor I found a rather sharp edge, which felt like bone, suggesting to me the possibility of a dermoid cyst, but a little examination showed that the whole tumor was hard. I could pass my fingers below the edge and slip them on either side of what might have been considered a sort of pedicle but could only carry them up a certain distance on the right side. The tumor extended over the median line considerably. Upon the right inferior portion, in the direction

of the right iliac region, there seemed to be a nodular projection which was somewhat movable on the right border and attached to the main mass. The small intestines were firmly adherent to it, which doubtless accounted for the resonance on percussion. I exposed a portion of the tumor under the incision and it presented a white appearance, of hard consistency and it struck me as cartilaginous. I believe it is a cartilaginous tumor, possibly with some osseous formations in portions of it, but the lower border especially presented the consistency of cartilage and also the white appearance, and its slow growth corresponds to that of cartilage. Of course, such a tumor growing in this region would be a very remarkable thing. I was unable to determine what point it sprung from because it required a degree of manipulation which I did not feel justified in attempting. I was satisfied I could not remove it without killing the patient, so I closed up the opening. I think the prospect is she will get well. I mention this case because the character of the tumor is a very extraordinary one. The incision was made in the linea alba and was about five inches long.

Malignant Scarlatina.

DR BRIGGS.—On Tuesday I was called to the house of the Good Shepherd and got there about 11 o'clock. The notification given was, that there was a sudden and fatal case of some kind. I found that the patient was a girl, about 21, who some months previously had been under treatment for syphilis, but she had ceased taking medicine for several weeks previous. She lay in bed with an extremely hot and very moist skin. I took the temperature myself and found it somewhat over 106.° Her employment was, attending to the table and in the kitchen. Of course, there might possibly be infection from the washing department but she was not in it. There had not been any new-comers and there was no case of contagious disease in the house. She had been coughing incessantly. I found the fauces well open, not swollen at all, but somewhat reddened; the tongue was very moist and covered with a rather thick, moist coat. She had been complaining for some two or three days only and the day before they had been on the point of giving her a cathartic when her bowels began to move. By the time that I arrived she had soiled the bed on several occasions so that it was necessary to change the bedding; every time she coughed there was a fluid fecal discharge. The kidneys had acted twice since morning. The discharge from the bowels was accompanied by a bilious stain and she had vomited the day before, but not that day. She was troubled with some nausea but it was not productive of any special degree of vomiting. I looked at the chest, and it seemed to be normal. Her face had a sort of turbid look and in certain lights appeared as if papules were about to come on the cheek but had not come to the surface. There was an eruption on the fore-arms which looked extremely like scarlatina; there was also

a similar eruption on the back. The drainage of the house and the sanitary arrangements had been under quite close observation. There was a regular inquest of the house in October. This was an exceptional case and an extremely difficult one to treat. The sister asked my prognosis and I told her that in a case of this kind coming on without any contagion that we could discover and advancing so rapidly and the temperature so high, it would not be surprising to me that she should die before the next day. She died at 3 o'clock the next morning. In looking over the cases of invasion of scarlet fever, it seems that there are exceptional ones where the bowels are affected and you have this running off, and it is possible that it is to a certain extent irremediable, and that it would be damaging to check it. At the time I saw this patient, on the morning of the 7th, she was able to speak to me and was perfectly self-possessed. At about 8 o'clock in the evening her eyes were glassy and fixed and the vital powers were succumbing to the attack. The treatment was the application of cold to reduce the temperature and prevent the using-up of the vital forces. The discharge from the bowels had not exactly a fœtor but its smell was quite unpleasant, not unlike that of diarrhœa. On examining the lungs there seemed to be sufficient air going into them and she had no difficulty in breathing. I could discover nothing irregular by auscultation except the coarseness of the respiratory murmur, both in inspiration and expiration.

DR. A. GREEN.—Was there any internal medication?

DR. BRIGGS.—No, sir. I thought that she was in a hopeless condition when I first saw her.

DR. PREWITT.—Are you certain of your diagnosis?

DR. BRIGGS.—I considered it a very exceptional case and I would like to have some light thrown upon it. The case caused a great deal of deliberation on my part. There was no brain symptoms until late.

DR. GREEN.—If I had a case such as the doctor has mentioned, no matter what the disease was, whether it was scarlet fever or anything else in which the fever is so high that the patient is in danger of death from it, I would use the antipyretic treatment. Of course, cold applications are part of this but I consider quinine an antipyretic. In such a case I would give kairine and quinine. I would also use the benzoata of soda, injecting it into the bowels.

DR. BREMER.—I believe that in a case of scarlet fever where there is a tempeaature of 107°, neither quinine nor any other medication would have the effect of preserving the life of the patient. I do not see how the benzoate of soda could have any effect in acute disease. It is possible that the temperature could be reduced by quinine and the application of cold, but it would only be temporary and not of any permanent benefit. It is even now doubted whether the reduction of the temperature by the use

of cold in typhoid fever is of any real benefit. I believe that these very violent cases are doomed from the beginning, especially where the temperature is 107.° I never saw a patient get well who registered 107°, in any disease, although I have heard that recoveries have taken place.

DR. A. GREEN.—I cannot endorse the opinion of Dr. Bremer. I am not speaking theoretically, but from clinical experience. I can show cases in which the temperature has been high enough to kill and which I saved by quinine and cold applications. We can do a great deal by reducing the temperature with quinine, by brandy and benzoate of soda, which is an antiseptic. Even if it is but a temporary effect, after it has gone away we can use our remedies again, and, in the course of time, the patient will get well. I had in one family three cases of scarlet fever, I gave quinine and benzoate of soda and the children recovered. In one the temperature was 107° or 108°. Such facts are worth more than all theories.

DR. PREWITT.—This statement of the case shown there was no means of contagion; and certainly in a case as violent as that it would be very difficult to make a diagnosis unless the eruption were well defined, and the symptoms well marked. The eruption in scarlet fever appears within 48 hours after the starting of the disease and the fever is generally pretty well defined, even in mild cases. Unfortunately, there seems to have been no recorded temperature for the first two days, and during that time the girl ought to have the eruption. When Dr. Briggs saw the case it was certainly a very hopeless one and the eruption was not sufficiently well defined to say that it was one of scarlet fever. As regards the high temperature, I must say that I think it has a very different significance according to the disease with which it is associated. I have never seen a case of scarlet fever get well in which it was as high as 106° and I should question my own thermometer if it should record 107° and the patient recovered. I believe with Dr. Bremer that no medication would have saved the patient. It is a question whether high temperature does kill patients. There are cases where the temperature has been as high as 116° and even 120° and the patient recover. There are other conditions than high temperature which determine the fatality of these cases. Then I think there is some force in Dr. Bremer's remarks in regard to the fact that the reduction of temperature by remedies is only temporary. It is true some good is accomplished, I have used veratrum a good deal for lowering the pulse and in many cases it does not affect the temperature to the slightest extent. I tested the matter thoroughly in the City Hospital in a number of cases. The pulse and temperature do not bear any direct relation one to the other. We see this constantly. We have patients in fatal peritonitis whose pulse may be 158 and the temperature not over 100,° so that merely lowering of the pulse is not always a satisfactory thing. It is true

in certain cases it is advantageous to slow the heart's action because it is wearing, it is acting with too much rapidity. If we can lower the temperature without too great a shock to the patient we may accomplish good, however.

DR. BRIGGS.—Perhaps I may indulged in a few comments on the remarks that have been made. I did not report the case as a typical one of scarlet fever. I endeavored to reduce the temperature by means of wet sheets, and I find that I can often use cold applications to advantage. I have not seen a case where the temperature was 107°, 108°, 109° 110° and the patient get well. Of course, I do not say that there have not been such cases, but I look upon a patient with a temperature of 106° as in a decidedly dangerous condition, and the chancres are that medicine will not have much effect.

SATURDAY, April 18, 1885.

DR. ATWOOD, President, in the chair.

Specimens of Epithelioma.

DR. BREMER.—The specimens that I present are not much of a curiosity, but the reason I present them is the following: Some time ago Dr. Mulhall showed a tongue which was attacked by epithelioma. The specimen was characterized by the absence of all secondary nodules: there was a large hole in the base of the tongue, cribriform in character, and on that a clean ground and granulations. It did not convey the impression of an epithelioma but rather of a tuberculous ulcer. I took that submaxillary gland with me in order to determine whether it really was epitheliomatous or tubercular; and when I looked at it, the characteristic onion-like arrangement of the tumor convinced me at once that it was not tubercular, but a true epithelioma. The first specimen that I present came from a living subject and the result of an operation. It is a primary epithelioma of the tongue. The other comes from a dead subject and is secondary in nature. The tumor in the first specimen started in the parotid gland and was connected to the lower maxillary bone, which it converted into a cancerous mass, thence transmitted clear through the whole tongue. Both these tumors have the characteristic that they extend through the whole length of the tongue and occur on the left side. There is a practical point connected with this peculiarity; which is, that very frequently there is only one epitheliomatous tumor and the surgeon may think that if that is cut away the operation is complete. But a good many years ago Syme, an English surgeon, advised that whenever there was undoubted epithelioma of the tongue it would be best to take out the whole tongue at once, because nobody could tell how many secondary tumors there might be.

In this case you will see the correctness of this position. The tumor extends almost from the tip of the tongue to its base. You will see that it must have been rather a formidable operation. A portion of the lower jaw was taken out, the submaxillary gland, a piece of integument and the whole of the tongue. The man survived about four years and died from what was said to be pneumonia. I did not see the case; but it was probably aspiration pneumonia, the mucous secretion trickling down into the trachea and filling up the alveoli of the lungs and setting up inflammation there. It is a well known fact that the mucous of the mouth which is, in its proper place, harmless, will set up an inflammation as soon as it comes in contact with the lungs, and will give rise to a kind of pneumonia which proves fatal, very often, especially in small children. I have not much to say in regard to the second specimen except that it may be seen how destructive these epitheliomata are and how they convert into their own kind every tissue with which they come in contact, with the exception of the teeth which keep their contour and escape. In this case, especially, the alveolar structure is shown very beautifully. I have here a third specimen which is an epithelioma of the lower lip and there is a practical point attached to it. The primary epithelioma here presents itself in the shape of an ulcer. There is a slight elevation, the integument is unbroken, showing that there is already a secondary tumor there. This is the practical impression: as you know, there are many surgeons who dread the knife in operating. Some even go so far as to say that the knife is poison to a cancer. I suppose in this case the whole mass was removed, and where this is the case, of course, the operation is all right; but, if any portion of the tumor remains, it will take a double activity and it will run a very rapid and fatal course. The question now is, can such cases be successfully treated by external applications? What made me speak of this was an article which I read only yesterday, an extract from the proceedings of the Imperial Royal Society of Vienna, in which Dr. Moosetig-Mohrhof recommended the use of lactic acid as a topical application for malignant growths. He says that by applying it to the pathological tissue the latter is at once converted into a black pulpy mass, but that the normal tissue is respected. If that should prove true and should be verified by observation we would have in lactic acid the ideal caustic, because it only destroys that which is bad. He has made quite a number of experiments and applied it with a pencil or he takes a ball of cotton and saturates it with lactic acid and puts it on a morbid growth and lets it lie there for twelve hours. He claims to have very favorable and remarkable results. Now it seems to me that the lactic acid will have only a limited use in morbid growths. It would be a question, for instance, whether it could be used successfully in epithelioma of the tongue even in the

first stage. But I have no doubt, from the testimony given, that it really exerts a beneficial influence; and, in persons who are afraid of the knife, might prove of benefit, especially in cancer of the skin. In this case of epithelioma of the lip it would certainly have been useless to apply lactic acid, because it would come in contact only with the primary ulcer, whereas the secondary nodule would not have been reached unless it had been cauterized to such an extent as almost to have gone to the depth of one-third of the lip. I would add that in the case from whom the tongue was removed the man was an inveterate smoker. Sometime ago I examined a suspicious piece of the floor of the mouth of a gentleman who is also a very hard smoker. He smoked twenty cigars a day, and I found it was the beginning of an epithelioma. That was about two months ago, and now it is in full blast, the destructive process going on very rapidly. The examinations of the microscope are sometimes of decided benefit —especially in the cases where there is a suspicion of syphilis, and syphilitic gummata sometimes, in the beginning of the disease, resemble epithelioma and it is very difficult to make a correct diagnosis. Of course, the slide under the microscope will show this, and it is not a very painful operation to take out a piece of the tumor.

DR. OHMANN-DUMESNIL.—Does the doctor know whether there was a recurrence of the nodules in the cases of lupus in which the lactic acid was used?

DR. BREMER.—I only read an abstract of the report, but the author claimed to have employed this agent successfully in all kinds of superficial growths.

DR. MCPHEETERS.—Epithelioma is one of the slowest forms of cancer and one which if operated on in the early stages will be successful more so than some other forms. About a year ago I removed from the neck of the womb an epitheliomatous growth covering the space of a ten cent piece. The surrounding parts seemed healthy. I applied fuming nitric acid after removing it thoroughly. An accomplished microscopist reported it as unquestionably a cancerous growth. In ten days I re-applied the acid. I have kept the case under observation ever since examining it at intervals of weeks, sometimes several months. I examined this case on Tuesday of this week and I saw no appearance whatever of any recurrence. The only treatment she has been under is a hot water douche, regularly applied. Of course, these growths sometimes return after years. I was called on to examine a gentleman for a life insurance company, who had applied for a large amount, and, although he was a very robust, stout man, I discovered a small scally growth, which might have been overlooked, under the left eye. I examined it with my magnifying class, and while it was not at all angry, I considered it of sufficient importance to decline the risk, especially as it was for a large amount. That was four years ago.

Some months since I picked up a paper and I saw this gentleman's name mentioned as being at Eureka Springs for cancer of the face. I suppose by this time the epithelioma is of considerable size. There has been a great deal of interest manifested in regard to the connection between cancerous growths of the tongue and mouth and the use of tobacco. Of course, we cannot admit that tobacco will produce epithelioma where there is no predisposition to it. There are thousands of persons who use tobacco and use it to a very great extent, and it is only here and there that we have cases of cancer. Then I see that some dentist has said that a defective tooth would produce it. Well, of course, we know that is not so, but that might produce an iritation, and where there is a tendency to cancer it might tend to develop it, but not so much as tobacco. But there is, I suppose, no immediate connection between the use of tobacco and this growth, although it may aggravate it. It has been stated that epitheliomata are probably becoming more frequent. In a very elaborate account of cancers in general it was stated that they are on the increase. I was reading the other day that at Washington City a gentleman had received some plants from South America which had been applied to one case and it had a very beneficial effect on lupus and he invites attention to it. It was sent to the department in Washington by some one in Brazil. Of course, we must take all these cancer cures with a great many degrees of allowance. But I think that Velpeau was right when he made the remark, in his clinic, that true cancer never was cured.

DR. POLLAK.—I remember to have had in my practice, many years ago, a case of epithelioma of the tongue. A man came down to the clinic, in which Dr. Pope was then associated with me, with an epithelial growth, about the size of a small bean, on one side of the tongue. Its removal was decided upon and this effected by means of the ecraseur. We underpinned the whole growth and removed it without any bleeding. That man was past sixty years of age. It did not interfere with his articulation nor with deglutition. He continued to work and everything went on well until four years after precisely to the very month. He came back with another growth and Dr. Pope was then absent in Paris, and the duty of removing it devolved upon me. I removed the whole anterior part of the tongue with the ecraseur and again the man recovered entirely and continued to work as a carpenter for four years afterwards, when at the end of that time precisely he came again to the hospital with another growth, but then it involved the submaxillary gland. Dr. Gregory had charge of the hospital then. He thought nothing short of removal of the jaw and the maxillary gland would be of any benefit at all and in fact he did not care to attempt it, and of course I did not. The man then went to Dr. Bauer, who operated, and

the man succumbed immediately. I have both specimens of the tongue in my possession now. They have been very carefully examined by an able microscopist. I had a case of lupus, ten years ago, in which the growth occurred on the temple. It was as large as a quarter of a dollar and had been in existence for more than a year. Of course it would not heal. The patient would not consent to have it excised and refused to allow the use of the cautery, so I made an application of Vienna paste. Although I told the woman to return in forty-eight hours she did not do so for nearly a week, and before she came back her whole face was frightfully erysipelatous. I removed the paste and the whole growth, down to the periosteum, came away with it. I have this specimen also because it is an exceedingly interesting case. The wound healed very slowly; I think it took six or seven months.

DR. DICKINSON.—I think the experience of surgeons will bear me out in the assertion, that the early removal of these growths, especially epithelioma, gives a good security to life as well as the non-recurrence of the affection. And this is illustrated by a case which I operated upon 12 years ago, removing an epithelioma from the eye. It was situated at the junction of the upper margin of the cornea with the sclerotic. I removed it entirely, as far as I could detect it, with the knife. A few days after the operation he went home with the intention of returning in a day or two, but matters were such that he could not do so. In a few weeks the growth was renewed to one third of its original size, I had a consultation and among other consultants was Dr. Gregory and he pronounced it unquestionably epithelial in character, and also those who were present suggested its removal by the enucleation of the globe, thinking that it would be entirely justifiable. Upon my statement that it had been reduced one third and possibly if again removed it might be reduced another third, and then if it should renew its growth it could be removed a third time and possibly would not return, they agreed that it was well to attempt its removal. This was done and he has had no return of it since. That eye is the best eye to-day. No caustics were used at all; they would simply serve as an irritant. About the same time another gentleman, a clergyman, had a small growth in a similar situation and underwent the same treatment, that, however, returned in one year. It was again removed and so far as I could detect, entirely, and if there were any suspicious points they were cauterized with nitrate of silver. That was at least 10 years ago, and I heard from him about a year ago and there had been no renewal in his case. I also had another clergyman under my care seven years ago, who had a growth at the junction of the left lower lid with the epithelium of the skin; I removed that and there has been no renewal. Another case, about 2 1-2 years ago, was a suspicious growth that was called an epithelioma. I removed it and in the course of three or four

months it renewed itself, not in its original situation but at another part, still upon the eye, and near the junction of the cornea with the sclerotica. I removed it again and it then recurred in another part and still upon the same eye. This patient, a lady, has been operated on five times but there seems to be an inveterate disposition to renewal. About four or five months ago she came to me again and the growth was nearly the size of a small pea. She had been prevailed upon by her friends to go to somebody else.

DR. POLLAK.—Could the lactic acid be used in the eye?

DR. BREMER.—Why not? It is stated that it only attacks the pathological tissue. The gentleman is a professor in the University of Vienna and I believe he knows what he says when he makes the assertion.

DR. MEISENBACH.—Dr. Bremer states that the patient operated upon died of aspiration pneumonia. I would like to ask him if he does not think that it was due not to mechanical irritation but to the bacteria which found their way in the lungs? I believe a great many bacteria are found in the normal saliva which have no effect in the mouth but would have upon the lung.

DR. BREMER.—That is the view generally taken of it, that is, that it is due to micro-organisms which are harmless in the mouth but pathogenetic as soon as they come in contact with the epithelium of the lungs; it is not due to mechanical action but to the action of the microbes, at least, such is the supposition.

DR. WILLIAMS.—About 20 years ago, while I was in Cincinnati, the Honorable John Hall, of West Virginia, came to that city for the purpose of being operated upon for epithelioma of the lids of one eye. The growth attacked the external canthus, involving both lids, being small at the time. The diseased portion was simply excised. Some time after he came back with a return of the trouble in the same locality. The disease, at that time, had invaded both lids and extended along the conjunctiva until it reached the edge of the cornea. It became a matter of necessity to remove the eyeball in order to get rid of the entire diseased portion. That was done, and that gentleman, who was then 60 years old, went home after the wound got well and the disease never returned. He died several years after of some acute affection. In his case there is no doubt but that these two operations prolonged life several years. I operated on a woman from Illinois, who, some years ago, had a tumor on the side of her nose, which some physician destroyed by caustics, causing a very large cicatrix and involving the inner hall of both lids with very great contraction from the cicatrization. Some years after the disease returned in the ends of the lids that had been cauterized, and year before last she consulted me in regard to the matter. I diagnosed epithelioma and advised removal of the eyeball. The conjunctiva was involved clear to the margin of the cornea in two or three places, and on account of the great con-

traction the eyeball was shut up behind the lids. I cut away the marginal half of both lids and incised the external canthus so as to get at and remove the eyeball. After a few days she returned home. Some months after, her husband wrote me that she was entirely well and had had no trouble. I cautioned her particularly when she left that if she had any sign of trouble she should let me know immediately. I have not heard from her and I presume it has not returned. I will suggest a means of cauterization that is worthy of trial in epithelioma when it can be gotten at easily, and that is electrolysis. In my hands, it has proved quite satisfactory; however, I have not had an opportunity to use it enough to establish anything certain, but I am quite well satisfied that electricity used in this way is of value and it can be easily applied in any place where we can get at the seat of the trouble. I will certainly take the first opportunity I have of trying it further. I did not use electrolysis in the above case because the ball had to be removed and I thought it best to cut away all diseased portions while I was at it.

SATURDAY, April 25th, 1885.

DR. ATWOOD, President, in the Chair.

Cocaine in Dipsomania.

DR. POLLAK.—I have had a case of dipsomania and alcoholism in a gentlemen aged 39 years. His brother, father and grandfather have all died of delirium tremens, and he is a victim of it. In the midst of his business he is obliged to desist and take his drink. He will get up at midnight to take a drink, he cannot resist the desire for it. He will take three or four drinks of gin until he is thoroughly intoxicated, then he goes home and goes to sleep. On the 15th of December I was prevailed upon to see him. He was in a frightful plight, lying on his bed muttering all the time like those who have delirium tremens. He did not know anything, or that there was any one in the room; but he took hold of my hand and held it so firmly that I fairly screamed with pain. I injected five drops of a four *per cent.* solution of cocaine into the pit of the stomach, and I had not more than withdrawn the syringe before he went to sleep. He woke up, took his breakfast and went to his business knowing nothing of what had been going on until his wife told him during the course of the day. He was so extremely impressed with the efficacy of the remedy that he came to my office and asked me to get him some. I made a four *per cent.* solution and he has been using it ever since. Every day he injects one or two drops, and he has had no desire for drink since. The peculiarity about the case is that he goes for weeks without any desire for liquor and then suddenly the desire comes and he has no control over himself at all. This is the only case where I have tried it and I am per-

fectly gratified with the result, and if it proves to be so in other cases we will certainly have a great remedy. I see that Fleischel, of Vienna, who has charge of the Round Tower, which is perhaps the largest insane asylum in the world, writes that he thinks we will be able to dispense with inebriate asylums entirely. It was he who induced me to try this remedy.

DR. DICKINSON.—This drug bids fair to be of very great service, especially in ophthalmic practice, but it seems it may not be used at all times. It is only in suitable cases that it should be used, like jequirity which had a run a few months since and which is very valuable. Certainly if used in cases not adapted to it, ill results must follow.

DR. WILLIAMS.—What objection is there to the use of cocaine in any case?

DR. DICKINSON.—I saw recorded the experience of a physician in New York or London who had injected a solution of it beneath the conjunctiva into the orbital tissue and which, to his regret, proved very deleterious. It caused a high degree of inflammation, so much so that he would be very reluctant to do the same thing again.

DR. POLLAK.--Dr. Knapp of New York met with an accident by inflammation following the use of cocaine in an injection beneath the conjunctiva. The party had syncope which lasted several minutes and it did not entirely subside for several hours. Four or five drops of a four *per cent.* solution produced this.

DR. BREMER.—Dr. Pollak spoke of ALCOHOLISM and DIPSOMANIA.

DR. POLLAK.—I meant dipsomania chiefly.

Alcoholism and Dypsomania.

DR. BREMER.—Alcoholism proper has nothing to do with dipsomania. The alcoholic drinkers may tipple and continue so for a long time until all at once a catastrophe supervenes in the shape of delirium tremens. A good many persons are alcoholics without knowing it; they take moderate quantities and attend to their business and to all the duties of life and still there is a chronic impregnation and saturation of the whole system which is bound to terminate sooner or later in delirium tremens, if they are not carried off by some intercurrent disease, such as cirrhosis of the liver. But in dipsomania, the victim drinks periodically, until he cannot drink any more; he does not get delirium tremens, the dipsomaniac never does; and, therapeutically, the alcoholic may be cured, in the dipsomaniac it is always transmitted to him by heredity. I had a little experience sometime ago. In regard to cocaine in alcoholism. A practitioner from Arkansas came to consult me in regard to his case; he is a morphine eater, and by a firm determination, by mustering a great amount of will power he concluded to drop that and take to whisky. He got along very nicely with it until symptoms of chronic intoxi-

cation manifested themselves, such as loss of memory, insomnia and some vague symptoms of delirium tremens. In this stage he came to me, and I suggested to him that he try the cocaine. He commenced the injection of one tenth of a grain daily and wrote me a very enthusuastic letter about it. He mentioned that he felt entirely relieved, and had no cravings either for morphia or alcohol. At the expiration of four weeks I wrote to him inquiring how he was getting along, and in the letter I received he told me that he had increased the injection to three-fourths of a grain and, as it had lost its charm, he had returned to the old stand-by—opium. It will not do to leave such persons treat themselves. They ought to be under the supervision of a physician; it is not the remedy that effects the good result as much as the physician.

DR. POLLAK.—Alcoholism can exist without dipsomania but I do not know whether dipsomania can possibly exist without alcoholism.

DR. BREMER.—Yes sir; dipsomania does not necessarily depend upon the use of whisky, a dipsomaniac will resort to petroleum, if he does not get petroleum he will resort to ether and if he does not get ether he will resort to chloroform, and this, periodically. The allusion to ether reminds me of a very queer case that made a great deal of noise in the scointific world some decades ago. It was shortly after ether was introduced into medicine as an anesthetic, when a Professor in Berlin, I forget his name, described the wonderful effects and sensations felt by a patient under ether. It was at that time quite new, and a young student of theology who was present and heard it thought he would try it. This man was known for his eccentricity. He commenced the inhalation of ether and would intoxicate himself with it for weeks together. He invested all his money in order to buy ether and have a pleasant sensation of the inhalation that ether would give. He became a very noted and peculiar figure in Berlin. He was very frequently picked up in the gutter and taken to the police station and held there until he sobered up. He was commonly known as "ether Fritz." When in Paris, I heard of a case of dipsomania in which the patient did not touch anything but ether or chloroform by inhalation. He was the son of a very wealthy widow and had squandered a great deal of money committing all kinds of foolish acts in his intoxicated state. He had gotten so low that he would enter a cab, make the cabman pay for his ether, and while in the cab would intoxicate himself. There is another peculiarity connected with this case. His mother has circulars printed which were sent to every pharmacist in Paris requesting and beseeching them not to give ether to such and such person and by that way he was known to all the pharmacists, but not one ever refused him ether when he had the money.

DR. POLLAK.—What would you call my case?

DR. BREMER.—I would call it dipsomania; you say he had periodical cravings for liquor.

DR. ATWOOD.—I had a gentlemen, of about 28 or 30 call upon me who was addicted to the opium habit. He had returned from New York where he had spend six months in the house of a specialist, who devotes himself exclusively to those affected with the opium habit. The desire for the drug had returned and he had indulged slightly in it for two or three days and up to the time he called on me. I gave him thrice daily one-half a grain of the hydrochlorate of cocaine hypodermically. It had no deleterious influence but, on the contrary, an exceedingly pleasant one. His mind was excited and he was able to perform any amount of mental labor, although he was rendered somewhat sleepless by it. The symptom which annoyed him most was nausea, which disappear within two or three minutes after the injection was administered. He also had a sensation that his abdomen was exceedingly enlarged, that disappeared in a very few minutes. There was also an extreme itchiness of the extremities. He complained that his hands felt very cold after taking the hypodermic injection, and when I took hold of his hands they did feel exceedingly cold to me. There was dilatation of the pupils, very marked, as much so as under the influence of atropine. He told me after the first injection that the desire for morphia had disappeared nor did it return during the time I saw him. He finally had no desire for the drug and did not care to take the hypodermic injection of cocaine, and although I have kept him under observation for three weeks past he seems to be perfectly healthy and says he has no desire for the drug; but the fact remains, which must always be taken into consideration, that opium eaters are liars.

DR. MOORE.—I would like to inquire of the gentlemen who have spoken of cocaine whether any of them have used Squibbs' preparation?

DR. MOORE.—We have learned to regard Squibbs as a reliable manufacturer, but my experience with his preparation of cocaine has changed my opinion somewhat. I had a four *per cent.* solution made by a careful, reliable druggist and applied it to what I thought was exactly a case for its use, conjunctivitis. It produced a great deal of spasmodic action of the lid and gave a good deal of pain but it had no more effect than water. I had it increased to a six *per cent.* solution, and I don't think it acted quite as well as the four *per cent.*

DR. ATWOOD.—I have used Parke, Davis & Co's and Merck's; I find no difference in these preparations.

DR. WILLIAMS.—I used Merck's at first but recently I have used what is known as White's preparation, of Philadelphia, and in my hands it is equally as good as Merk's with one exception probably, and that is, that it causes a smarting sensation when it is first placed in the eye, it is very slight, however. In listening

to the gentlemen on the subject of cocaine and its use in delirium tremens and like affections, it occurred to me whether possibly the use of cocaine would become a habit like that of opium or any other stimulant. It is quite probable that if cocaine is used a considerable time and become a habit it would be difficult to break, or it may lose its effect as in the case Dr. Bremer narrated.

DR. BREMER.—Among the tribes of South America, where cocaine is used, there are such people who are known as victims to the drug and they generally die from paralysis. The symptoms are loss of appetite, of memory and of motor power. The people become quite stupid and pitable objects; they are a burden to the community where they live.

DR. LOVE.—A physician in this city who has a large practice in the treatment of these diseases, related to me sometime ago a case of opium habit in a gentleman in which he substituted muriate of cocaine with a charming effect. Each day he found that he could get along with less and finally was enabled to do without it altogether, using muriate of cocaine however in gradually increasing doses. Very soon he found that he substituted one habit for another and, unfortunately, he had acquired a very expensive habit. In that particular case there was no gain. I tried it upon a case of a gentleman suffering from the effects of a debauch, a chronic in that particular direction. An irritable prostate gland and the treatment of it have for several years caused him to become an opium habituate. About a month before the time of which I speak, knowledge of this fact came to me and I arrived at the conclusion that sedatives had no effect on him, no matter what they were. Sometimes two grains of opium had to be used, that is in broken doses, before it produced any effect. Taking all these things into consideration, I concluded I would give him a hypodermatic injection of cocaine. It was then a new thing. I gave him half a grain hypodermatically without any special effect. I repeated the injection giving him another half grain. The pupils were dilated, the extremities chilly with a feeling of paralysis and numbness; his mind was clear and bright; there was a depression about the heart and a feeling of sinking there. I did not tell him what I had given him and he said that morphine never affected him that way before, that he felt as if he was going to die. I watched the effects some hours and it took more than the usual amount of morphine to put him to sleep. In this case the effect was somewhat unusual. Before making reports, we had better wait until we get a large number of cases that we can collate and arrive at a conclusion. I think that in performing operations on the skin the use of the oleate would probably be beneficial as I should think it would be readily absorbed. That has been my experience in the use of the oleates of other remedies, such as quinine.

DR. LEE.—I have tried the oleate of cocaine as a local anæs-

thetic applied to the skin without any good effect whatever. I know a drug clerk who took a piece of sand-paper and rubbed off the outer epithelial scales and, the surface being somewhat abraded, he got a most happy effect.

Cocaine for vomiting of Pregnancy

DR. LOVE.—Have any of the gentlemen tried this remedy for vomiting in pregnancy?

DR. HENSKE.—I have tried this remedy in a patient about four months pregnant and got no effect whatever. I used Squibbs' preparation hypodermically.

Dr. LOVE.—In the case Dr. Henske mentions it is probable that if he had used the muriate of cocaine by the mouth instead of injection, a better result might have followed; it would then have an effect upon the seat of the trouble—the stomach.

DR. ATWOOD.—Its use upon the mouth of the womb would perhaps be more beneficial, as that is the original source of the trouble.

DR. LAIDLEY.—I used this remedy in the case of a lady who had borne one child and had missed her menses once and had all the symptoms of pregnancy. She was suffering a great deal from nausea. I gave her this remedy until I had given her 10 drops of a 4 *per cent.* solution. I called on her in the evening but found that there had been no beneficial effect. I made two application about 10 minutes apart and after the second I did not remain to see its effect, but the next morning I returned and found the patient with as much nausea as before.

DR. DICKINSON.—Undoubtedly there is a great difference in the preparations that are furnished us. A surgeon in New York, desiring to perform some operation, applied a solution and it produced great irritation and an extreme amount of pain, in consequence of which he was obliged to desist, and afterwards he procured another preparation with which he performed the operation.

Jequirity.

DR. POLLAK.—If I understood Dr. Dickinson, he thinks that the use of jequirity has been discontinued. My idea is that it is in more general use now than it is ever was before and that it is giving the most satisfactory results. So far as I can read in the journals and from my own experience I have never known its effect to be so charming as I have in the last month. I use it differently now from what I did at first. I use a very weak solution, not more than half a *per cent.* in my applications, making an application two or three times a day. I have always succeeded in inducing a very high degree of inflammation with the very best results. One bean macerated in a tablespoonful of water for an hour will be enough to produce the desired effect. I have only had a failure of one case out of 151 since I first began using it.

DR. WILLIAMS.—A year and a half ago I had a case of distressing noises in one ear in a gentleman living in the city. They were so great that he could not sleep. I treated the man in the ordinary way supposing he had subacute affection of the drum cavity but without effect. I injected two or three drops of a solution of jequirity into the drum cavity through the Eustachian catheter, and I know it entered the cavity because I heard it drop, through the otoscope. The next morning he had very decided inflammation of the drum cavity; the membrane was quite red and the ear pained him considerably during the night. This passed off in the course of three or four days and all his symptoms subsided but the noises continued. My object was to excite an artificial abscess in the drum if I could and cause suppuration and perforation of the membrana tympani and get rid of the disease in that way, but I failed.

DR. OHMANN-DUMESNIL.—Dr John Shoemaker, of Philadelphia, has reported the use of jequirity in lupus and rodent ulcer in which he produced a high inflammatory condition together with rapid cicatrization and disappearance of the growth. After the suppuration takes place, of course, he treats it antiphlogistically. The theory upon which it is applied is, that the suppuration will destroy the neoplasm and go down to the healthy tissues beneath.

ARTICLE LXXI.

AMERICAN MEDICAL ASSOCIATION.

THIRTY-SIXTH ANNUAL MEETING, held at New Orleans, April 28, 29 and 30, and May 1st, 1885.

(Reported for the JOURNAL.)

FIRST DAY.

The meeting was called to order by Dr. Samuel Logan, of New Orleans; prayer was offered by Rev. B. M. Palmer.

ANNUAL ADDRESS OF THE PRESIDENT.

The president, Dr. Henry F. Campbell, of Augusta, Ga., with the eloquence characteristic of the Southerner, thanked the members of the Association for the honor conferred upon him, his state, and the South by having elected him their president.

In speaking of the "Past and Present," he paid glowing tributes to the memory of the illustrious dead and did homage to

those yet living. He spoke of the progress that had been made in the arts of medicine during the past year, and hoped for its continuance.

In reviewing the work of the Association he referred to the *Journal* as an assured and satisfactory success and justly commended its venerable edition, the Father of the Association. He mentioned the advantages that would acrue to the members of the Medical Profession of this country by the coming meeting of the Ninth International Medical Congress. He suggested that a new section, for the discussion of forensic and legal medicine, be formed. In speaking of "The Doctor in the Courts," he referred to the low standard at which the medical witness or expert was placed, and spoke of the difficulties encountered when trying to explain scientific problems to an ignorant jury.

On motion, a vote of thanks was tendered the president.

Dr. Quinby moved that a committee of five be appointed by the chair to report on that portion of his address relating to forensic medicine. Carried.

Dr. Richardson read a paper containing the biography of the late Prof. Samuel D. Gross.

Dr. Billings stated that the committee appointed for that purpose, had succeeded in obtaining an appropriation from Congress for the erection of a Fire-Proof Building for the Army Medical Museum and Library in Washington.

On motion of Dr. Keller the report of the committee on the coming meeting of the International Medical Congress was made the special order for Wednesday at 12 M.

The report of the Committee on the subject of the Rush monument was laid over until Friday morning.

Drs. Edw. Jones, A. B. Miles, and A. J. Beckman, of New Orleans; A. E. Foote, of Phila., and J. Scarborough, of Clinton, Ky. were invited to take part in the meeting.

The Medical Association of South Carolina, through Dr. Kinloch, presented a communication on the Discovery of the Anæsthetic Properties of Sulphuric Ether. Referred to Section on Practice of Medicine and Materia Medica.

SECOND DAY.

ADDRESS OF THE CHAIRMAN OF THE SECTION IN PRACTICAL MEDICINE.

After the secretary announced the Committee on Nomina-

tions, Dr. Henry D. Didama, Chairman of the Section in Practical Medicine, Materia Medica, and Physiology delivered his address. He said that a full compliance with the by-laws would weary his audience and that he would only speak of the two more recent discoveries viz: The Hydrochlorate of Cocaine, and Comma Bacillus, leaving the minor subjects to the Medical Journals.

He spoke of the prompt and thorough experiments made with the new local anæsthetic and the universal acknowledgment of its merits, of its use in the eye, in acute coryza, in the sudden hoarseness of Singers and Speakers, of its probable beneficient effects in gastric irritation and catarrh and thought that it might prove a quick and powerful muscular invigorator.

He reviewed the progress that had been made in bacteriology and was forced to admit that this line of study has furnished little aid in the combatting of disease, and that no new remedy had been suggested by the discovery of the Comma microbe. He would not, however, detract from the glory accorded to the discoverers of the comma and tubercular bacillus.

He next took as his theme. The Etiology of Diseases, and said:

The mycologist is inclined to claim that a legion of diseases arise from micro-organisms. Included among them are the exanthems, typhus, typhoid, and yellow fevers, diphtheria and mumps, tuberculosis, venereal indiscretions, and cholera asphyxia. It is not pretended that the specific *contagium vivum* of every one of these complaints has been demonstrated by propagation experiments. But as the spirillum of anthrax, the micrococcus of diphtheria, the bacillus of phthisis and cholera have been captured and exhibited and caused to multiply, the inference does not seem forced that all diseases which resemble these specified, in having contagious properties, or a period of incubation, or a definite cycle, or capabilities of preventing subsequent attacks, have as their causes certain minute, even if undiscovered, organisms.

The neurologist is confident that a multitude of complaints have their origin in the nervous system.

That the highest recorded temperature has resulted from injuries of the spinal cord—and where the influence of microzymes is excluded—is not a matter of question. In one instance the temperature reached 122° F. and remained for seven weeks between 108° and 118°. The patient was a lady, the result was

recovery. An incidental inference is, that if recovery can take place after a continuous average temperature of 115° for nearly two months, it is not the fever which kills or produces rapid softening of the heart and other organs in fatal cases of typhoid. Whether there be special calorific nerves which may be stimulated in moderately severe spinal injuries to increased production of heat, or whether, from continuous compression of the nerves, heat is produced by increased resistance—as in the galvano-cautery—are questions which may merit investigation. Fever, so far as it consists in elevation of temperature, can be a simple neurosis.

That rheumatism involves the nervous system, even if it does not originate in it, may be inferred from the erratic behavior of the joint affections in rheumatic fever. Many cutaneous affections, notably zoster, urticaria, eczema, are of nervous origin. Pneumonia sometimes arises from injury of the brain. Diabetes, both the glucose and the insipid varieties, can be produced, as is well known, by irritating certain nerve centres. Some kidney diseases and liver complaints are the result of persistent nervous disturbance.

The humoral pathologists still adhere to the belief that our physical ailments arise from disorders of the blood. Plethora has its numerous attending evils, congestions, hæmorrhages, cardiac disturbances. Anæmia is the prolific parent of a thousand aches and pains; of indigestions, palpitations, mental and physical debility.

Many dermatologists believe that certain cutaneous affections are caused by impure blood. Eczema is one. The solidists pin their faith to cellular pathology. We need not be confused by this conflict of opinions. Neither of the views is exclusively true; neither is wholly false. Living foreign organisms; the nervous system; effete impurities of the blood; disorder of the minute cells of which every part of the human frame is constructed; each of these may be a factor in the origination of disease; each may be first, or midway, or last, in the vicious circle of causes.

From the ovum to the cadaver, man is constantly exposed to a conspiracy of morbific influences and agents to destroy him. There are foes without and foes within; foes which march up in front and boldly smite him in the face; foes which approach insidiously and undermine him; foes which are so attractive that he counts

them as friends, till he finds himself dangerously smitten under the fifth rib. The destructive influences and agents are in the air he breathes, the food he eats, the water he drinks, and a hundred-fold more in the substitutes for water which he imbibes. These foes are the accidents and sudden dangers which he encounters; the misplaced switch of the railroad; the lurking miasm, the infected air, the defective drainage, the insufficient light which sap the foundations of life. These morbific foes find access to the citadel of life through sometimes one avenue and sometimes another. Whatever the manner of entrance, the result is the same: nerves and blood and cells all become at length involved in the mischief.

To counteract these ruinous influences and agents, many means of defence and attack are provided.

We are familiar with what is called the *vis medicatrix naturæ*, it is a power which is sufficient in many cases of disease to effect a cure.

Now while we are familiar with this reparative power, we may not be so attentive to another conservative force which is especially important. The *resisting power*. From the *vis medicatrix* this power differs essentially. One is a restorative force, the other is the conservative force, which *prevents* departure. A priceless inheritance is a strong resisting combined with a vigorous recuperative power. He who has it and preserves it and fortifies it, living a clear and active life, eschewing bodily and mental excesses, and clings to the Divine promises, may bid defiance to disease in its multifarious forms.

ADDRESS OF THE CHAIRMAN OF THE SECTION IN OBSTETRICS, ETC.

The address of the Chairman of the Section in Obstetrics and Diseases of Women was delivered by Dr. R. S. Sutton, of Pittsburg, Pa., and was entitled.

The first operation of Ovariotomy.

He recounted the circumstances and surroundings of Mc Dowell first case of Ovariotomy, in 1809. He dwelt particularly upon the fact that Mc Dowell left the operation in almost as complete a state as it is at present. He regarded Listerism as an essential factor for the performance of successful operations involving the opening of the abdomen. He concluded his address by making an eulogy on the late Dr. Sims.

Dr. W. C. Van Bibber, of Baltimore, Md., read a paper on the

Construction of a Health City in Elorida, or Peninsular and sub-Peninsular Air and Climate. The reading of the paper was discontinued as the hour for special order of business had arrived.

INTERNATIONAL MEDICAL CONGRESS.

When the special order of business in regard to the ninth International Medical Congress had been called. Dr. Shoemaker, of Phila., entered his protest against the Report of the committee on the International Medical Congress stating that, in his opinion, they had exceded their authority, that they had ignored the associations delegates who were present at the meeting at Copenhagen, had conived with the New Code men and placed men who were inimical to the Association in high positions in the proposed list of Officers of the next Congress.

Dr. F. E. Daniel, of Austin, Texas, Editor of the *Taxas Courier Record of Med.*, offered the following preamble and resolution:

Whereas, At the last meeting of the American Medical Association a committee of seven was appointed to confer with the International Medical Congress, to be held in Copenhagen, with the view to securing the next meeting of that body in 1887, in Washington, D. C., and for the purpose of arranging for said meeting, and

Whereas, That Committee, after having accomplished said object, have proceeded, without authority from this body, to appoint the several officers of sections and committees, which appointments have been published and thus acquired the color and aspect of an official action of this body, and

Whereas, This Association recognizes said Committee as a Committee of Arrangement only, it declines to recognize or accept the said appointments which it has made. Therefore be it

Resolved, That the Committee on Nominations be instructed to select and present to the body, nominees for the office of president and all the other officers of the approaching International Medical Congress.

Dr. Billings denied that there had been any conivery and said that the Committee had enlarged itself and performed its work in accordance with the resolution passed at the last meeting of the Association, which gave them full power, in case of the acceptance of the invitation, to make all the necessary arrangements, raise funds, etc.

Drs. Gabriel, of Piqua, Ohio, and Quinby, of N. J., thought that the committee should have consulted the delegates of the Association.

Dr. Keller, of Arkansas, offered the following substitute:

Resolved, That the Committee appointed by the American Medical Association to arrange for the meeting of the International Medical Congress in 1887 be enlarged by the addition of members from this Association, one from each State and Territory, and from the Army and Navy and Marine Hospital Service, and the District of Columbia, to be appointed by the present presiding officer, Dr. J. S. Lynch, of Baltimore, First Vice-President, and that this Committee thus enlarged shall proceed to review, alter, and amend the action of the present Committee as they may deem best.

Dr. D. E. Bird, of Arkansas, moved to amend the substitute so that the states represented at the meeting ellect the additional members of the Committee and the present presiding offices.

Dr. Keller accepted the amendment and as thus amended the substitute was carried by a two-thirde note.

THIRD DAY.

Dr. N. S. Davis read the report of the Committee on Meteorological conditions and their Relations to the prevalence of Disease. Report accepted.

Dr. Davis stated that he was a member of the International Sub-Committee on the Collective Investigation of Diseases and he urged that the State Societies take action in the matter.

CODE OF ETHICS.

The Committee on the interpretation of certain points in the Code of Ethics submitted through Dr. Davis the following preamble and resolutions:

Whereas, Persistent misrepresentations have been and still are being made concerning certain provisions of the Code of Ethics of this Association, by which many in the community, some in the ranks of the profession, are led to believe its provisions exclude persons from professional recognition simply because of difference of opinion or doctrine; therefore be it

Resolved, That Clause 1, Article IV., in the National Code of Medical Ethics, is not to be interpreted as excluding from professional fellowship, on the ground of difference in doctrine or

belief, those who in other respects are entitled to be members of the regular medical profession, neither is there any other article or clause in said Code of Ethics that interferes with the exercise of the most perfect liberality of individual opinion and practice.

Resolved, That it constitutes a voluntary disconnection or withdrawal from the medical profession proper to assume a name indicating to the public a sectarian and exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession.

Resolved, That there is no provision in the National Code of Medical Ethics in any wise inconsistent with the broadest dictates of humanity, and that the article of the Code which relates to consultations cannot be correctly interpreted as interdicting, under any circumstances, the rendering of professional services whenever there is pressing or immediate need of them; on the contrary, to promptly meet the emergencies occasioned by disease or accident, and to give the helping hand of assistance without unnecessary delay is a duty fully enjoined on every member of the profession, both by the letter and spirit of the entire Code, but no such emergencies or circumstances can make it necessary or proper to enter into professional consultation with those who have voluntarily disconnected themselves from the regular medical profession in the manner indicated by the preceding resolution.

(Signed) N. S. DAVIS,
A. Y. P. GARNETT,
H. F. CAMPBELL,
AUSTIN FLINT, SR.,
J. B. MURDOCH,

Adopted.

Dr. Duncan Eve. Chairman of the Section on Surgery and Anatomy, in his address reviewed the work that had been done in this branch and ended by paying a beautiful tribute to the late Dr. Gross.

The Treasurer's report showed a balance of $932,11 in the treasury and reported the *Journal* as being a paying institution.

The Committee on Publication recommended that Dr. Davis be continued as Editor.

Dr. Reed, of Ohio, moved that the Society offer prizes for the two best papers in each section showing original research.

Carried. The Nominating Committee presented the following list of Officers for the ensuing year.

PRESIDENT.—William Brodie, of Michigan.

VICE-PRESIDENTS.—Samual Logan, of Louisiana; A. Y. Garnett, of the District of Columbia; Charles Alexander, of Wisconsin; and W. Peck, of Iowa.

PERMANENT SEC.—W. B. Atkinson, Phila.

TREASURER.—R. J. Dunglison, Phila.

LIBRARIAN.—C. H. A. Kleinschmidt, D. C.

SECTION OF MEDICINE.—J. T. Whittaker, of Ohio, Chairman; C. L. Coleman, of Kentucky, Secretary.

SECTION OF OBSTETRICS.—S. C. Gordon, of Maine, Chairman; J. Paine, of Texas, Secretary.

SECTION OF SURGERY AND ANATOMY.—N. Senn, of Wisconsin, Chairman; H. H. Mudd, of St. Louis, Secretary.

SECTION OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.—Eugene Smith, of Michigan, Chairman; J. F. Fulton, of Minnesota, Secretary.

SECTION OF DISEASES OF CHILDREN.—W. D. Haggard, of Tennessee, Chairman; W. B. Lawrence, of Arkansas, Secretary.

SECTION OF STATE MEDICINE.—J. H. Rauch, of Illinois, Chairman; F. E. Daniel, of Texas, Secretary.

SECTION OF ORAL AND DENTAL SURGERY.—J. S. Marshall, of Illinois, Chairman; A. E. Baldwin, of Illinois, Secretary.

COMMITTEE ON NECROLOGY.—J. M. Toner, of the District of Columbia, Chairman.

JUDICIAL COUNCIL.—R. A. Kinloch, of South Carolina; D. D. Saunders, of Tennessee; T. G. Richardson, of Louisiana; G. A. Ketchum, of Alabama; Baird, of West Virginia; J. M. Toner, of the District of Columbia; A. M. Pollock, of Pennsylvania.

Through the earnest efforts of Dr. LeGrand Atwood. (former editor of THE JOURNAL) St. Louis was decided on as the next place of meeting.

The following gentlemen were added to the Committee on the International Congress.

G. A. Ketchum, Ala.
D. A. Linthicum, Ark.
R. B. Cole, Cal.
C. Denison, Colo.
L. P. Bush, Del.
A. Y. Garnett, D. C.
R. D. Murray, Fl.
R. Batty, Ga.
E. P. Cook, Ill.
F. W. Beard, Ind.
D. W. Stromont, Kas.
W. H. Watson, Ky.
J. W. Duprie, La.
S. C. Gordon, Me.
J. S. Lynch, Md.
A. H. Wilson, Mass.
A. R. Smart, Mich.
E. French, Minn.
N. F. Essig, Mo.
R. C. Moore, Neb.
W. Pierson, N. J.
E. Elliot, N. Y.
X. C. Scott, Ohio.
J. V. Shoemaker, Penn.
W. E. Anthony, R. I.
R. A. Kinlock, S. C.
F. A. Sim, Tenn.
J. W. McLaughlin, Texas.
W. C. Dabney Va.
G. Baird, W. Va.
N. Senn, Wis.

J. B. Hamilton, Marine Hospital service.
Surgeon-General Murray, U. S. A.
Surgeon-General Gunnell, U. S. N.

Dr. Quinby. of N. J., then offered the following resolution, which was adopted: that the Committee as enlarged be authorized and empowered to select a Chairman and Secretary, and to fill all vacancies that may occur, and to appoint the officers of the Congress.

FOURTH DAY.

ADDRESS OF THE CHAIRMAN OF THE SECTION IN OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

Dr. J. A. White, of Virginia, reviewed the work and progress that had been made in this department. He spoke of the efforts made for the improvement in the treatment of detached retina; recommended the operation of enucleation by evisceratio bulbi; commented on the use of jequirity; spoke of Landolt's labors in regard to binocular fixation; spoke of cocaine and its physiological action.

He paid particular attention to the reflex phenomena arising from nasal disease, and differed from those who thought that these phenomena arose from engorgement of the nasal mucosa and thought that they were a form of inherited or acquired excitability.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON CHILDREN'S DISEASES.

Dr. J. H. Pope of Texas, thought that there had been no special advance made in this quarter. He spoke of the improve-

ment in artificial food for children, of the use of bichloride of mercury in diphtheria; he thought that rickets might be, to some extent, due to too long nursing. He expressed regret that so little attention was paid to this section.

Dr. Quinby, of N. J., Chairman of the Committee, reported favorably on the establishment of a

SECTION ON MEDICAL JURISPRUDENCE.

Dr. Byrd, of Ill., offered an amendment to the effect that each State Medical Society appoint each year a member of the

NOMINATING COMMITTEE.

together with three alternates who shall constitute said commitee of the Association.

The usual resolutions expressing the thanks of the Association for their entertainment was offered and unaminously adopted.

The president, Dr. Brodie, of Mich,. was then escorted to the chair. He thanked the Association for the honor conferred upon him.

Dr. N. S. Davis, then closed the meeting with some stirring remarks.

Adjourned to meet in St. Louis, Mo., the first Tuesday in May, 1886.

SECTION ON PRACTICE OF MEDICINE, etc.

Dr. Bulkley, of N. Y., read a paper on

THE TREATMENT OF CARBUNCLE WITHOUT INCISION.

He thought it best to let the carbuncle open itself, as then there would be less danger of absorption of pus. He gave calcium sulphite ½ gr. every two hours, together with an ointment of fl. ext. ergot and oxide of zinc. He also gave a tonic and laxative.

Dr. Hibbard, of Ind., used oleate of morphia as an ointment and found that it cured without the necessity of incision.

Dr. Savage, of Tenn., used cantharidal colodian very successfully.

Dr. Whittaker, of Ohio, read a paper on

AN ATTEMPT AT RADICAL TREATMENT OF TUBERCULOSIS.

He had injected the bi-chloride of mercury in five cases, but the results were *nil*.

Dr. Flint's paper on

NOMENCLATURE OF PHYSICAL SIGNS OF THE RESPIRATORY SYSTEM

was read by the secretary. This was a report of the committee appointed at the International Medical Congress.

Dr. N. S. Davis, in an address on the

CONTAGIOUSNESS OF PHTHISIS,

concluded that if it was necessary that there be a predisposition to the disease before the bacillus had any effect, then the predisposition and not the bacillus was the cause of the disease.

Dr. Shoemaker, of Pa., read a paper on

THE HYPODERMATIC INJECTION OF OIL.

He thought that excellent results could be obtained in this way, when the stomach would not retain the oil. This method, and that of inunction, is valuable and should be used more than it is at present. For the injections, a large syringe, 4 to 8 drams capacity, should be used; the scapular or sacral regions are the best cites, as they are supplied with an abundance of subcutaneous cellular tissue.

Dr. J. H. Hollister, of Ill., read a paper on

CHOLERA AND ITS TREATMENT.

He reviewed its history and mode of invasion. The main question was as to whether the comma-bacillus was the cause. The doctor did not think that it has proven so.

Dr. A. Flint thought that the comma-bacillus was specific.

Dr. N. S. Davis said that the treatment of this disease was cleanliness.

Dr. Taylor, U. S. A. thought the disease contagious.

SURGICAL SECTION.

Dr. J. B. Roberts, of Pa., read a paper on

FALSE DOCTRINES IN THE TREAEMENT OF FRACTURES.

He referred to the injurious effects of the primary bandage and the untimely use of passive motion. Splints were often left on too long. The exploring of fractures of the skull was too often neglected. Fractures of the nose should be transfixed with pins. The axillary pad should not be used in fractures of the clavicle the posterior portion of the scapula should be fixed. Fractures at or near elbow joint should be dressed in the straight position.

Measurements of the lower extremities are not of much value as a diagnostic sign, as they vary even when no fracture exists.

Dr. W. P. Verity, of Ill., read a paper on the

FREE DRAINAGE AND WIRING OF THE BONES IN COMPOUND FRACTURES.

No fragments should be removed unless they were a source of irritation; they should be wired and free drainage allowed.

Dr. N. Senn, of Wis., read an able paper on

THE SURGICAL TREATMENT OF CYSTS OF THE PANCREAS.

He concluded:

1. Cysts of the pancreas are true retention cysts. 2. Cicatrical contraction, or obliteration of the common duct of its branches, and impacted calculi, are the most frequent causes of cysts of the pancreas, 3. A positive diagnosis of a cyst of the pancreas is impossible. A probable diagnosis between it and some other kind cysts amenable to the same surgical treatment is adequate for all practical purposes. 4. The formation of a pancreatic fistula under antiseptic precautions recommends itself as the safest and most expedient operation in the treatment of cysts of the pancreas.

Dr. J. Ransohoff, of Ohio, read a paper on

TWO OVARIOTOMIES ON THE SAME PATIENT.

Women have given birth even after one ovariotomy and while the other ovary was in a diseased state, consequently conservatism should be practiced except in those women approaching the climacteric.

If necessary, a second operation can be performed without much danger.

Dr. R. H. Jenkins, of Ga., reported a case of

GIANT GROWTH OF THE LOWER EXTREMITIES

in which the feet measured over twenty inches.

Dr. A. P. Garnett, of D. C., read a paper on

COLO-PROCTITIS.

and stated that he used hot-water douches and stretched or divided the sphinicters. He reported cases successfully treated in this way.

Book Reviews.

Article LXXII.

☞Owing to press of matter, we are compelled to omit Some of the Reviews and all notices that were intended for this number, and to condense some of the Reviews which, otherwise, would have appeared at greater length.

A Guide to the Diseases of Children. By James F. Goodhart, M. D., F. R. C. P. Revised and Edited by Louis Starr, M. D. With Formulæ, 8vo, pp. 738. Price, Cloth $3.00, Sheep $4.00 [Phila.: P. Blackiston, Son & Co., St. Louis: St. Louis Book & Stat. Co., 1885.

The author has filled the gap that existed between the small works and the encyclopædias. Much that has always seemed superfluous in the larger works has been omitted; the author, unlike some other writers, giving his readers the credit of knowing something of medicine previous to reading his work, has confined himself to such subjects as are peculiar to children. In dealing with diseases common to adults and children, he has often omitted the minute description of signs and symptoms; yet, even with these omissions he has filled 716 pages with very valuable matter.

The book is essentially a clinical one and on this account is the more valuable. Dr. Starr in revising and editing the work has interpolated many things that will make the work more valuable to American readers.

A Treatise on Amputations of the Extremities and Their Complications. By B. A. Watson, A. M., M. D. 8vo, pp. 762. 255 Illustrations, two full page plates. Price $5.00 [Phila.: P. Blakiston, Son & Co. 1885.

The author has had ample opportunities for the compilation of this encyclopædic monograph and well has he improved them. He has presented fully and fairly *every thing* bearing on amputations and their complications. He has drawn largely from foreign and domestic literature, both treatises and periodical literature. While there is an abundance of literature on almost every subject in medicine and surgery, especially the latter, yet this work fills a place and will be welcomed by those who are engaged in this branch of surgery, especially will it be found useful to the railroad-surgeon.

The typographical portion of the work is exceptionally good, the illustrations "show up" well and indicate good workmanship.

A MANUAL OF ORGANIC MATERIA MEDICA, Being a guide to Materia Medica of the Vegetable and Animal Kingdoms, for the Use of Students, Druggists, Pharmacists, and Physicians. By John M. Maisch, Ph. D. Second Edition, with 242 illustrations. 8vo, pp. 511. [Phila.: Lea Brothers & Co. 1885.

The author of this work is so well known, on account of his labors in connection with the third edition of The National Dispensatory, that it needs no words of commendation to insure its favorable reception by the profession. The present edition is enlarged in size though substantially unaltered in arrangement. Among the new features might be mentioned a description of the most important drugs indigenous to North America, and also a list of remedies classified according to their Zoological or botanical derivation, an addition which will be found to facilitate reference to drugs of allied origin.

THE DIAPHRAGM AND ITS FUNCTIONS: Considered Specially in the Relations to Respiration and the Production of Voice. Original Illustrations. By J. M. W. Kitchen, M. D. "The Voice" First Prize Essay. 8vo, pp. 101, cloth $1.00 [Albany, N. Y., Edgar S. Werner, 1885.

To this treatise was awarded the first prize offered by *The Voice*, competition being open to all writers, foreign as well as American. The Anatomical, Physiological and Hygienic divisions are well written and worthy the careful consideration of those in the medical as well as in the vocal profession. An appendix, written a year subsequent to the essay itself, gives practical conclusions and advise.

TRANSACTIONS of the New York State Medical Association, for the Year 1884. Vol. I. Edited for the Association by Austin Flint, Jr., M. D., 8vo, pp. 654. [New York.: D. Appleton & Co., 1885.

This is the first volume of the transactions of this society. Founded in March, 1884, it has already a fellowship of 514. It is the old code society of the state. From the number of interesting and instructive papers contained in this the first volume, it promises to be a bright and shining light. Dr. Austin Flint, Jr., deserves great credit for the able editorial portion of the work.

The regular price of this volume, to persons not fellows of the

association, is $5.00 and can be obtained from Dr. J. H. Hinton, Treasurer, 41 West 22nd st, New York City.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM, Especially in Women. By S. Weir Mitchell, M. D. Second Edition, Revised and Enlarged. With five plates, 8vo, pp. 287. [Phila.: Lea Brothers & Co. 1885.

This work deals with the rarer maladies of women, it is composed of seventeen lectures, those on Diagnosis of Hysterical Disease of Joints, on the Relations of Hysteria to Organic Diseases of the Spine, and on Hysterical Disorders of the Rectum, having been added to the revised form of the previous edition. In no other book will these, as well as other subjects, be found so clearly and well defined.

A MANUAL OF DISSECTION OF THE HUMAN BODY. By Luther Holden. Edited by John Langton, with over 200 illustrations. Royal octavo. pp. 886, [Phila.: P. Blakiston, Son & Co. 1012 Walnut st. 1885.

In compiling this work the author has purposely omitted the subject of osteology. The dissection of the various parts are treated in a style that is calculated to interest and hold the students attention. The arrangement is better than that of Gray's Anatomy but the illustrations are not as clear.

COCAINE and its use in Ophthalmic and General Surgery. By H. Knapp, M. D. Reprinted from the *Archives of Ophthalmology*. With supplementary contributions by Drs. F. H. Bosworth, R. J. Hall, E. L. Keyes, H. Knapp, and Wm. M. Polk. Royal octavo pp. 87. [New York & London: G. P. Putnam's Sons 1885.

This book contains a conpilation of valuable ideas and clinical results of the use of the hydrochlorate of cocaine.

THE PHYSICIAN HIMSELF, and what he should add to his scientific Acquirements in order to secure success. By D. W. Cathell, M. D. Octavo, pp. 284. Price $2.00 [Baltimore, Md: Cushings & Bailey, 262 W. Baltimore St.

The author demonstrated his ability to write on this subject in the first edition, and the favor with which the subsequent editions were received was flattering, to say the least. The physicians of the present day are sadly lacking in professional tact

and business sagacity, and every practitioner would do well to purchase, peruse and act on the suggestions given in this work.

BIENNIAL REPORT of the Inspectors of the State Penitentiary for the Western District of Penn. From Jan. 1st 1883, to Dec. 31st 1884.

We are indebted to Dr. D. N. Rankin, Physician to the state penitentiary, for this report. During the year 1883 but eight deaths occurred among the 923 prisoners, and in 1884 only five deaths among 997 prisoners. Of the 472 prisoner discharged during the years 1883 and 1884, all but three left the prison in an improved state of health. Dr. Rankin is to be congratulated on his exceptionally good report.

THE MEDICAL AND SURGICAL DIRECTORY of the State of Missouri, for 1884 and 1885. By Coleman R. Ammerman, M. D. [Quincy, Ill.: Volk & Jones.

Dr. Ammerman has compiled this work in a very concise and clear manner. It contains *all* that one might want to know about the members of the medical profession in this state, besides full information regarding all the Medical Societies of the State. It will be gladly welcomed by all, especially by those who have exercised their ability to write and who want to sent reprints to their brother practitioners.

AN INTRODUCTION to the Study of the Compounds of Carbon; or, Organic Chemistry. By Iva Remsen, Prof. of Chemistry in the John Hopkins Univ. 8vo, pp. 364. Price $1.30 [Boston: Finn, Heath & Co. 1885.

This work is intended for students who are beginning the subject, whether they intend to follow the pure science, or that of arts, medicine, etc. It is complete in all its parts, and ample illustrations are interspersed in the text.

DR. SEGIMIS' METRIC PRESCRIPTION BOOK, Price 20ct. [New York: G. P. Putnam's Sons, 1885.

For those who wish a convenient blank for metric prescription writing we know of no book which will please them better.

THE INVALID'S TEA-TRAY. By Susan Anna Brown, pp, 67, [Boston: J. R. Osgood & Co. 1885.

This is a neat and useful little book that should be in every household.

Notes and Items.

Article LXXIII.

The Birth-Rate of Illegitimates in Prague.—The city of Prague must have some special attractiveness for the erotic and the emancipated. Among 7,031 births there are 3,762 legitimate and 3,329 illegitimate; or per 1,000 persons, 43.12 births, 23.78 legitimate and 21.36 illegitimate. The inhabitants of Prague evidently obey the injunction of Shakespeare: "Let copulation thrive."—*Med. Record.*

The Hydrangea Arborescens.—The value of this native plant in renal affections was first made known to the medical public by the former editor of this journal, Dr. S. W. Butler. Recently Lambert and Co., of St. Louis, have combined the active elements of the plant with lithia in a preparation called "Lithiated Hydrangea," which unites the virtues of both these remedies. In the *Chicago Weekly Review* two cases of rheumatic gout with renal complications are reported by Dr. E. S. Senier, of Waukesha, Wisconsin, where this preparation in doses of a drachm, thrice daily, largely diluted, acted with prompt and satisfactory effect. The combination seems to us a happy one. *Medical & Surgical Reporter Philadelphia.*

Case of Cæsarian Section Performed by the Patient Herself. *Brit. Med. Jour.*—The following remarkable case was related by Dr. Van Guggenberg, and the patient exhibited at the last annual meeting of Bohemian physicians at Tetschen. On September 28th, 1876, he was summoned at two in the morning to see a woman who was said to have cut open her abdomen. He found the patient lying in a miserable house in a wretched and dirty bed, exhausted and bloodless, and only capable of making affirmative and negative signs. On removing a dirty petticoat which covered her, an incised wound was seen on the right side of the abdomen, passing downwards and inwards, from which a

somewhat large coil of intestine protruded, the greater part of which, covered with dry blood, rested upon a dirty blood-soaked straw-sack. Hæmorrhage seemed to have ceased from every part of the wound, and the uterus was contracted to the size of a child's head. A fully-developed, but dead, male child lay between the patient's knees. Clean linen was procured from a neighboring house, and with a piece soked in oil, the protuding intestines were carefully wiped and returned, and the wound sewed up, the peritoneum being included with the skin. The incision was about 3½ inches long and slightly S shaped. It was dressed with a five *per cent.* carbolic solution, fixed with strapping, and the abdomen carefully bandaged. By the afternoon the patient was able to speak, and the next day the history was taken. The pains began between September 24th and 25th, ceased in the afternoon and came on again on September 26th, when the midwife stated that she felt the presenting head on vaginal examination. On September 27th convulsions came on, according to the patients account, accompanied by agonizing pain and great distension of the abdomen; the movements of the child ceasing, the pain and the distension became so severe that the patient determined to perform Cæsarian section, of which she had heard. She therefore took a razor, and divided the skin slowly; she then made a second and a third incision, and finding the child not yet appearing, made another cut which caused a large jet of blood to escape, and exposed the placenta, which she removed. One foot of the child came into view, which she seized and pulled upon until the whole of the body came through the wound, the head requiring the execution of all her force; she divided the umbilical cord, laid the child (which she believed to be dead) beside her on the bed, and threw the placenta on the floor. She had passed neither urine nor fæces since September 24th. The progress of the case was very good; urine was passed on the afternoon of September 28th, but the first stool not till October 2d. The pulse reached 120 on the day after the operation, but was never again so frequent; the temperature is stated to have been very high; and although there was considerable amount of exudation from the wound, it was united by October 3d. The patient soon returned to work, and has been ever since in perfect health.—*Md. Med. Jour.*

CONVENIENT. RELIABLE. ACCURATE.

WM. R. WARNER & CO.'S

SOLUBLE COATED GRANULES.

PREPARED ESPECIALLY FOR PRESCRIBING.

The following list comprises formulæ of great value to the busy practitioner.

GRANULES	BOTTLE. 100	500
Acid Arsenious, 1-20, 1-30, and 1-50 gr. Medical properties.—Antiperiodic, Alterative. Dose, 1 to 2.	40	1 75
Aconitia, 1-60 gr. Med. prop.—Nerve Sedative. Dose, 1 to 2.	75	3 50
Aloin et Strychnine, Med. prop.—Tonic Laxative. Dose, 1 to 2.	60	2 75
Aloin et Strych. et Bellad. Med. prop.—Tonic, Laxative. Dose, 1 to 2. Aloin, 1 5 gr / Strychnine, 1-60 gr. / Ext. Belladon. ⅓ gr.	60	2 75
Atropine, 1-100 gr. Med. prop.—Anodyne. Dose, 1 to 2.	75	3 50
Atropinæ Sulph., 1 60 gr. Med. prop.—Anodyne. Dose, 1 to 2.	75	3 50
Caulophyllin, 1-10 gr. Med. prop.—Emmenagogue. Dose, 1 to 4.	40	1 75
Codeia, ½ gr. Med. prop.—Anodyne, replacing Morphia without the usual disagreeable after-effects produced by the latter.	1 25	6 00
Corrosive Sublimate, 1-12, 1-20, 1-40 and 1-100 gr. Med. prop.—Mercurial Alterative. Dose, 1 to 2.	40	1 75
Digitalin, 1-60 gr. Med. prop.—Arterial Sedative. Dose, 1 to 2.	75	3 50
Elaterium, (Clutterbuck's) 1-10 gr Med. prop.—Diuretic, Hydragogue Cathartic. Dose, 1 to 2.	95	4 50
Ext. Belladonna, (English), ¼ gr. Med. prop.—Anodyne. Dose, 1 to 2.	40	1 75
Ext. Ignatia Amara, ½ gr. Med. prop.—Nerve Sedative. Dose, 1 to 2.	50	2 25
Ext. Cannabis Indica, ¼ gr. Med. prop.—Anodyne. Dose, 1 to 4.	60	2 75
Ext. Hyoscyam. (English), ¼ gr. Med. prop.—Nerve Stimulant. Dose, 1 to 3.	40	1 75

GRANULES	BOTTLE. 100	500
Ext. Nuc. Vomicæ, ¼ and ½ gr. Med. prop.—Nerve Stimulant. Dose, 1 to 3.	40	1 75
Gelsemin, ¼ gr. Med. prop.—Emetic, Diuretic, Cathartic. Dose, 1 to 2.	75	3 50
Hyoscyamia, 1-100 gr. (Crystals Pure Alkaloid.) Med. prop —Anodyne, Soporific.	3 00	14 75
Leptandrin, ¼ gr. Med. prop.—Cathartic. Dose, 1 to 4.	40	1 75
Mercury Prot. Iodid., ¼ gr. Med. prop.—Alterative. Dose, 1 to 4.	40	1 75
Mercury Prot. Iodid., ½ gr. Med. prop.—Alterative. Dose, 1 to 2.	50	2 25
Mercury Prot. Iodid., 1-8 gr. Med. prop.—Alterative. Dose, 2 to 4.	40	1 75
Mercury Iodide Red., 1-16 gr. Med. prop.—Alterative. Dose, 1 to 3.	40	1 75
Morphinæ Sulph., 1-20 gr. Med. prop.—Anodyne.	40	1 75
Morphinæ Sulph., 1-10 gr. Med. prop.—Anodyne. Dose, 1 to 2.	50	2 25
Morphinæ Sulph., 1-8 gr. Med. prop.—Anodyne. Dose, 1 to 2.	60	2 75
Morphinæ Sulph., ¼ gr. Med. prop.—Anodyne. Dose, 1 to 2.	90	4 25
Podophyllin, 1-10 gr. Med. prop.—Cathartic. Dose, 1 to 4.	40	1 75
Podophyllin Comp., Med. prop.—Cathartic and Tonic. Dose, 1 to 2. Podophyllin, ½ gr. / Ext. Hyoscyami, ⅛ gr. / Ext. Nuc. Vomicæ, 1-16 gr.	75	3 50
Strychnine, 1-16, 1-20, 1-30, 1-32, 1-40 and 1-60 gr. Med. prop.—Nerve Stimulant, Tonic. Dose, 1 to 3.	40	1 75
Strychninæ Sulph., 1-32 gr. Med. prop.—Tonic. Dose, 1 to 2.	40	1 75
Veratrinæ Sulph., 1-12 gr. Med. prop.—Powerful Topical Excitant. Dose, 1.	50	2 25
Zinc Phosphide, 1-6 and ¼ gr. Med. prop.—Tonic. Dose, 1 to 3.	75	3 50

☞ **Please specify Warner & Co.'s when ordering or prescribing.** ☜
Granules sent by mail on receipt of price.

WILLIAM R. WARNER & CO. Chemists,

1228 MARKET STREET. 22 LIBERTY STREET.

DUFFY'S
PURE
Malt Whiskey.

Pure unadulterated and **absolutely Free** from **Fusel Oil,** is the only Whiskey that can be safely recommended by the **Medical Fraternity** to their patients; it has been endorsed by eminent Physicians and Chemists in all parts of the country. In all cases of Pneumonia, Diphtheria, Consumption, Malaria, Hemorrages, all Pulmonary complaints, low Fevers, **Dyspepsia** and **Indigestion,** it is highly recommended. In diseases where any stimulant is required, it is a valuable aid on account of its **Absolute Purity.** We are the only concern in the United States who are bottling and selling to the **Medical** Profession an absolutely **Pure Malt Whiskey.**

Gentelmen.—I take pleasure in testifying that I have made an analysis of your Pure Malt Whiskey, which gave a very gratifying result. Your Malt Whiskey, is entirely free from fusel oil or any of those similarly obnoxious alcohols which are so often found in Whiskeys. Therefore it can be recommended as extremely fit for medical purposes.

Dr. M. E. ARENDT,
Analytical and Consulting Chemist, Buffalo, N Y

STAPLETON, RICHMOND Co., N. Y.,
April 23, 1884,

Gentelmen.—When I prescribe an alcoholic stimulant to sick and convalescent people, I order your famous Malt Whiskey in preference to any other liquor, for the reason that I know it to be wholesome, clean and unadulterated. I confidently recommend it to the Medical Profession at large, satisfied that it will meet with the approval of the profession in every particular. Yours Truly,

JAMES J. O'DEA, M. D.

RICHMOND, VA., Oct. 21, 1884.

Gentleman.—Your sample of Whiskey came duly to hand, and its contents tested. I shall prescribe it whenever I consider that stimulant is required.

J. N. RICHARDS, M. D., 7 N. 6th St.

Gentleman.—Since the introduction of your Whiskey in our city, I use no other, for the reason that I know it to be pure and unadulterated. What I employ with so much success in my own practice I can, whithout hesitation, recommend.

JAMES. E WHITEFORD M. D.,
195 *Aisquith St., Baltimore, Md.*

BALTIMORD. MD., Oct, 3. 1884

Gentleman.-I have had a careful analysis made of a sample of your Malt Whiskey, as requested, and find it remarkably free from fusel oil and other odjectionable matterials so often found in the whiskeys of the present day.

Its flavor is dulte pleasant and agreeable to both taste and smell, and it is, therefore, well suited to all cases that require the use of an alcoholic stimulant.

HARVEY L. BYRD, M. D.,
President of the Faculty, and Professor of the Baltimore Medical College.

ROCHESTER, N. Y. Oct. 3, 1884.

Dear Sirs.—I have frequently prescribed your Malt Whiskey in my practice here; I consider it a very superior and reliable article, and can heartily recommend it in low states, in fevers, acute inflammations, and in depressing maladies generally, also as a tonic in feeble digestion and convalescence from acute diseases. when an alcoholic stimulant is indicated, and especially in Phthisis Pulmonalis.

FRED. H. SAWERS, M. D.
S. R. C. P. Lond., etc.

KENTUCKY STATE COLLEGE.
LEXINGTON, KY., Mar, 15, 1885.

I hereby certify that I have made analysis of DUFFY'S Malt Whiskey, and found it to be absolutly pure, not containing a trace of fusel oil, or any other deletorious ingredient. It is peculiarly fitted for medicinal or any other purpose where a carefully prepared and unadulterated whiskey is desired.

ALBERT E. MENKE, D Sc., F.C.S., F.I.C.,
Professor of Organic Chemistry, in the Kentucky State College, late Assistant Chemist, Department of Agriculture, Washington, D. C.

RETAIL PRICE $1.00 PER QUART BOTTLE.

TO THE PROFESSION OR DRUG TRADE, $9.00 PER DOZEN. NET.

To any Physician writing to us, mentioning this Journal, we will send a *quart bottle* as a sample, for *seventy-five cents*, the same neatly packed in a wooden case, without mark. Address,

The Duffy Malt Whiskey Co.

53 South Street, Baltimore, Md.

SOLUBLE HYPERDERMATIC TABLETS.

These Tablets are readily soluble in ten minims of warm water.
They are combined with an unobjectionable base, do not cause abscesses, and may be administered by the stomach as well as hypodermatically.
They possess the advantages of accuracy of dose and perfect preservation of the drug.

TABLET TRITURATES.

Prepared according to Dr. ROBERT M. FULLER'S Method.
(See MEDICAL RECORD, MARCH 9, 1878, and March 25, 1882.)
An easy, economical, and accurate method of dispensing medicines in a compact and palatable form.
Send for Price List.

MENSMAN'S
PEPTONIZED BEEF TONIC.

THE BEST THREE TONICS OF THE PHARMACŒPIA:
IRON, PHOSPHORUS AND CALISYA.

We call the attention of the Profession to our preparation of the above inestimable Tonics, as combined in our elegant and palatable **Ferro-Phosphorated Elixir of Calisaya Bark**, a combination of the Pyrophosphate of Iron and Calisaya never before attained, in which the nauseous inkiness of the Iron and astringency of the Calisaya are overcome, without any injury to their active tonic principles, and blended into a beautiful Amber-colored Cordial, delicious to the taste and acceptable to the most delicate stomach. This preparation is made directly from the **ROYAL CALISAYA BARK**, not from **ITS ALKALOIDS OR THEIR SALTS** being unlike other preparations called "Elixir of Calisaya and Iron," which are simply an **Elixir of Quinine and Iron.** Our Elixir can be depended upon as being true Elixir of Calisaya Bark with Iron. Each dessert-spoonful contains seven and a half grains Royal Calisaya Bark and two grains Pyrophosphate of Iron.

Purest Cod-Liver Oil in the World,

Manufactured on the Sea-Shore from Fresh and Selected Livers.

The universal demand for Cod-Liver Oil that can be depended upon as strictly pure and scientifically prepared having been long felt by the Medical Profession, we were induced to undertake its manufacture at the fishing stations, were the fish are brought to land every few hours, and the Livers consequently are in great perfection.

This Oil is manufactured by us on the sea-shore, with the greatest care, from fresh, healthy Livers, of the Cod only, without the aid of any chemicals, by the simplest possible process and lowest temperature at which the Oil can be seperated from the cells of the Livers. It is nearly devoid of color, odor, and flavor—having a bland, fish like, and, to most persons, not unpleasant taste. It is so sweet and pure that it can be retained by the stomach when other kinds fail, and patients soon become fond of it.

The secret of making good Cod-Liver Oil lies in the proper application of the proper degree of heat: too much or too little will seriously injure the quality. Great attention to cleanliness is absolutely necessary to produce sweet Cod-Liver Oil. The rancid Oil found in the market is the make of manufactures who are careless about these matters.

Prof. PARKER, of New York, says: "I have tried almost every other manufacturer's Oil, and give yours the decided preference."

Prof. HAYS, State Assayer of Massachusetts, after a full analysis of it says "It is the best for foreign or domestic use.

After years of experimenting, the Medical Profession of Europe and America, who have studied the effects of different Cod-Liver Oil, have unanimously decided the light straw-colored Cod-Liver Oil to be far superior to any of the brown Oil.

SURGICAL INSTRUMENT DEPARTMENT.

Under the direct and personal supervision of **W. F. FORD**, Instrument Maker to St. Luke's Mt. Signai, New York State Woman's Hospitals, Bellevue, and all the other New York Hospitals.
MANUFACTURERS, IMPORTERS, WHOLESALE AND RETAIL DEALERS IN
Surgical Dental, Orthopædic Instruments, Catheters, Trusses, Supporters, Silk stockings. Ear Trumpets, Splints, Anatomical Preparations, Local Anæsthesia Apparatus, Laryngoscopes, Ophthalmoscopes, Hypodermic Syringes, Axilla Thermometers, etc., etc.

☞Special attention given to the manufacture of Instruments to *order*, in exact accordance with patterns furnished by surgeons and Phsicians.

CASWELL, HAZARD & CO.,
Family and Manufacturing Chemists., New York.

SAVORY & MOORE, beg to call the attention of the Profession to some of their Special Preparations, the purity and uniform strength of which are Guaranteed.

PANCREATIC EMULSION

Prepared in accordance with the direction of the Physician who introduced this purely

MEDICINAL FOOD FOR CONSUMPTION AND WASTING DISEASES.

Pancreatic Emulsion will always take Precedence of Cod Liver Oil by reason of its introducing the STABLE SOLID FATS INTO THE SYSTEM instead of the evanescent fluid fats or oils.

Neither Cod Liver Oil nor EMULSIONS OF COD LIVER OIL can supply the kind of fat necessary for sound and vigorous human life. In addition to this all the Oily Emulsions are liable to rancidity, and most of them are highly objectionable in consequence of the SAPONIFICATION and ULTIMATE PUTREFACTION, produced by the chemical agents used instead of Pancreatic Juice.

Pancreatic Emulsion (properly so-called), is the NECESSARY FOOD FOR THE CONSUMPTIVE, and the most reliable form of nutriment for counteracting the tendency to Phthisis and other wasting diseases. It presents to the lacteals fat in essentially the same condition for assimilation and absorption as in a vigorous human frame, and THE AGENT of the important change is THE NATURAL SECRETION of the PANCREAS.

Pancreatic Emulsion may therefore be regarded as Chyle obtained by nature's own process. In certain cases both Cod Liver Oil and Pancreatic Emulsion are required—one to supply the blood with oil or liquid fat, the other with the more stable solid fats, but it cannot be to strongly urged that both PANCREATIC EMULSION and Cod Liver Oil are *not to be regarded as Medicine, but as articles of diet*, without which patients, with their defect of health, will as surely starve as healthy persons would if deprived of the most nutritive part of their food.

Pancreatine, affects the digestion and assimilation of Cod Liver Oil and Fat, as well as Food generally. This palatable and popular remedy is therefore invaluable to PATIENTS WHO ARE UNABLE TO DIGEST COD LIVER OIL, and who are thus deprived of its nourishing and invigorating properties.

BEST FOOD FOR INFANTS!

—AS SUPPLIED TO—

THE ROYAL NURSERIES

OF ENGLAND, RUSSIA, ETC.,

And Containing the Highest Amount of Nourishment in the Most Digestible and Covenient Form.

The most perfect substitute for healthy mothers' milk.

Datura Tatula for Asthma, Etc.

A Powerful and Universally Adopted Remedy.

"By immediate contact with the air cells and passages, instant relief is given."—Dr. Latham, *Physician to the Queen.*

"A remedy of great power and usefulness in Asthma, Chronic Bronchitis, etc."—Dr. W. Barker.

"The smoke causes no nausea. I have never known an instance in which relief was not obtained"—General Alexander.

In Tins, for use by means of a Pipe, Cigars and Cigarettes, and Pastilles for Inhalation.

SAVORY & MONRE, 143 New Bond Street, London.

Agents for America.—E, FOUGERA & CO., New York.

PEACOCK'S BROMIDES

—(CHEMICALLY PURE.)—

Each fluid drachm contains fifteen grains of the Combined C. P. Bromides of Potassium, Sodium, Calcium, Ammonium and Lithium.

USES.—Epilepsy, Spinal and Uterine Congestions, Congestive Headache, Cerebral Apoplexy, Enuresis, Dentition, Mania, Meningitis, Eclampsia, etc.

DOSE.—One to two Fluid Drachms, in water, three times a day.

PEACOCK'S FUCUS MARINA

—(ANTIDOTE TO MALARIA.)—

DIRECTIONS.—To Eradicate the Malaria from the system, One Teaspoonful in water, three times a day. For Intermittent, Remittent, and other Fevers, Five to Twenty Drops, every two or three hours. As a prophylactic against Malaria, One Teaspoonful twice a day. PEACOCK CHEMICAL CO., St. Louis.

MILK-MAID BRAND.

TRADE MARK.

ANGLO-SWISS MILK FOOD.

MADE AT CHAM, SWITZERLAND, BY THE ANGLO-SWISS COND. MILK CO.

Prescribed by leading practitioners, and used in prominent institutions throughout the Country.

CHEMICAL ANALYSIS.

	per ct.
Moisture	5 to 6
Nitrogenous matter [Nit. 2.25 to 2.35]	14.5 "15
Carbo-hydrates, soluble in water	54 "55
Carbo-hydrates, insoluble in water	15 "16
Fat	4 "5
Ash, [inclusive of 0.6 Phosphoric Acid]	2 "2.5

"The proportion of nitrogenous matter or plastic aliments to carbo-hydrates or respiratory constituents in mother's milk is 1 : 4.5, and in this food the proportion is practically the same, namely, 1 : 5.7. The fat, as a respiratory substance is here reduced to the equivalent of starch.

"My analysis perfectly agrees with the analysis given on their labels, and bears witness to the excellent and rational manner in which this food is compounded.—Dr. E. GEISSLER, Dresden, April 10, 1880.

I have used Anglo-Swiss Milk Food in my practice, and commend it with confidence to those who may need it for infants or invalids. The introduction of Anglo-Swiss Milk Food into America is a great blessing to sick children, weary mothers, and almost discouraged physicians, for medicine will not take the place of food."—E. A. JENNINGS, M. D., Provident Dispensary, 62 W. 14th St., N. Y.

"Used in New York Infant Asylum."—J. LEWIS SMITH, M. D.

"Has yielded most favorable results."—J. C. GUERNSEY, M. D., Philadelphia

"The diarrhœa had been persistent for four months in spite of the use of other foods. After using two days the evacuations became normal and the puny child is now plump and healthy." GEO. M. OCKFORD, M. D., Vincennes, Ind.

"Used in our Sea-Side Nursery. It nourishes and strengthens every child to whom it is given."—JOHN W. KRAMER, M. D., Master of St. John's Guild.

"Our little ones love it. It regulates and strengthens the bowels."—SISTERS OF CHARITY, St. Vincent's Home, Philadelphia.

"We find that it agrees with each case."—M. SPENCER, Matron Philadelphia Infant's Home.

Anglo-Swiss Cond. Milk Co., 86 Hudson St., N. Y. P. O. Box 3773.

SOLD BY DRUGGISTS GENERALLY.

Index to Advertisers

Where to buy and where to find out about

Disinfectants, Parke, Davis & Co. 1st, Page of Cover.
Lactopeptine, New York Pharmacal Association, 2nd, Page of Cover.
Mellin's Food, Doliber, Goodale & Co., 3rd, Page of Cover.
Fellows' Hypophosphites, James I. Fellows, 4th, Page of Cover.
Preparations of Lambert & Co., - - - - - - 1
Preparations of Battle & Co. - - - - - - - 2
North Western Medical College. - - - - - 3
Surgical Instruments, Pelgree. - - - - - 3
Preparations of E. Fougera & Co. - - - 4, 5, 22
Pepsin, E. Scheffer. - - - - - - - - - 6
R. L. Polk & Co., - - - - - - - - - - 6
Ridge's Food. - - - - - - - - - - - 7
Capsules, H. Planten & Son. - - - - - - 7
Hydroleine, Wm. F. Kidder & Co. - - - - 8
A. S. Aloe & Co., Surgical Instruments. - - - - 11
Preparations of Rio Chemical Co. - - - - - 12
The Davey Engine. - - - - - - - 13
Maltine, Reed & Carnrick, - - - - - - - 14
Murdock Liquid Food. - - - - - - - - 15
Young's Surgical Chair Co., - - - - - - 16
The Declat Manufacturing Co., - - - - - - 17
Horsford's Acid Phosphate. - - - - - - 18
Soluble Coated Granules, Wm. R. Warner. - - - 19
The Duffy Malt Whiskey Co., - - - - - 20
Peptonized Beef Tonic (Mensman's) Caswell, Hazard & Co. 21
Preparations of Peacock Chemical Co., - - - - 23
Anglo-Swiss Milk Food. - - - - - - - - 23
Hernstein & Price, Surgical Instruments Facing Editorial.

THE SAINT LOUIS

MEDICAL & SURGICAL JOURNAL.

VOLUME XLVIII——June, 1885.——No. 6.

Original Contributions.

ARTICLE LXXIV.

GERM ACTION*. By HIRAM CHRISTOPHER, A. M., M. D., Professor of Chemistry in the St. Joseph Medical College, St. Joseph, Mo.

When we speak of germs and their action, we should have a pretty clear idea of what is meant by germs, and then we will be the better able to understand the nature and extent of their action. As it is the purpose of this paper to consider the action of those germs which exist in so great numbers, and at all times, in the atmosphere, it will be proper to so define these terms that any confusion or misunderstanding may be avoided.

Germs are the initial point of all living organisms, and they are presented to us under different states or conditions. In their origin, they are the products of creative power; but in the reproduction of individuals from the original pair, germs are the ultimate products of the life process in the female of all species, of both plants and animals, and appear naked or clothed, according to the method of reproduction and grade of the plant or animal. That is, they are developed in the organism as ova, seed, spores, or germs. In all but the last, the germ is produced in connection with that amount of pabulum which will suffice for its growth or development to that degree in which the necessary organs appear, by which it can derive and appropriate food, as do matured individuals of the species. Examples of this we have

* A paper read before the North Western District Medical Society, St. Joseph, Mo.

in the egg of birds and the seed of plants, as corn or wheat. Spores have the supply of pabulum in a much smaller degree; but in all cases the quantity is sufficient for the wants of the germ that lies imbeded in the seed. Thus the contents of the eggs of animals are sufficient to develop the individual, and the albumen and starch in seed are sufficient to carry the plant to the root, stem and leaf, which are all the organs necessary for its farther growth and development. The germ itself is a one-cell organism, contents and investing membrane, or wall. It is the same essentially as the living cell of complex beings, since these are all reproductions of the germ. It is nourished by the pabulum in which it lies, when this becomes soluble, and appropriates food as do the living cells of matured organisms. The complex organism is but an aggregation of the simple ones.

The only living part of ova, seed, and spores is the simple, one-celled germ, and its pabulum is only organic. The product of vital action, and is soluble and insoluble organic compounds. Before this matter can serve as pabulum to the germ, it must be brought into certain states or conditions, and these states or conditions, are effected by physical agents, without affecting the essential constitution of the organic compounds. In the case of the ova of animals, these conditions are essentially the same, whether the animal be viviparous or oviparous. The pabulum must be in a state of solution and albuminous in constitution. This state is effected by a certain degree of temperature; and then the germ must have a nidus whereby it is placed in connection with its pabulum. In the more complex organisms, this nidus of cells is their position in organs and tissues where their food meet them through a circulatory apparatus. In the case of seed, the condition of things is essentially the same as in the ova of animals. The albumen in which the germ lies is dissolved by moisture, and the starch is rendered soluble by being changed to an isomer, and then these organic compounds nourish the germ until it has root, stem, and leaf, after which it can provide its own pabulum. But here temperature is also essentially necessary. With moisture and heat present, solution of pabulum is effected, germination begins, and development proceeds until the organism is matured.

Like physical conditions are necessary in the case of all germs, of the highest and of the lowest organisms, since all germs are of the same structure essentially, all possess the same vital force, and

all grow and mature in essentially the same way. But beyond and below the forms of plants and animals whose matured organisms are visible to ordinary vision, there are numerous species of organisms which are never visible to the unaided eye. These are called micro-organisms because visible only by means of the microscope. Their germs are always in the atmosphere, moving with every wind, clinging to objects of all kinds, inspired with every breath, taken in our food and drink; but germinating and growing only where a proper nidus and suitable food are found, with a temperature adapted to particular species. They are found as matured organisms in every latitude and in all longitudes. They develop and mature under tropical suns and arctic snows, as do plants and animal of the higher orders. Thus life is seen compatible with great extremes; but only a few species flourish under an arctic temperature. Life is in its tiniest forms, shows the strong hold it has on matter. It is the germs of these organisms we have in mind when we speak of germ action. They are like all others in being unicellular; but unlike all in that they have no pabulum associted with their structure. They are too minute to be seen with the highest powers of the microscope, and there are very probably many matured organisms as invisible as germs, of which we have no knowledge whatever. But their action can not differ, from that of those we can see, and it is only of these that we can affirm anything.

These are the germs that are supposed to be concerned, as a cause, in some diseases whose number gradually increases as men suppose they find new evidences of their morbific agency in different kinds of diseased action; but the only proof of such influence thus far is their presence in the fluids of the diseased organism. It will not be unprofitable, therefore, if we shall examine with some scrutiny the province and nature of their work.

The subject presents itself under two aspects, suggested by two important questions, viz: *What* is their action and *when*? It will be sufficient to say of the first that it is the same as that of any other kind of germs, of whatever grade in the series their matured organisms may be: nutrition, followed by growth and reproduction. These are the essential and fundamental functions of all living beings, and are essentially the same in all. Their action is to eat in order that they may mature into individuals capable of continuing the species, that the work of their orders may continue as long as their work is needed.

But these germs, isolated as they are, are wholly dependent

on certain contingencies for their germination and development. While this is partly true of all germs, yet it is specially true of these naked cells, whose waiting halls are in air, and water; *when* do these naked germs germinate? The conditions necessary to their germination and growth are essentially the same as those for the germs of the higher organisms. These conditions are that their pabulum shall be dissolved in some fluid, and that the temperature shall be that which is suited to the life of the species. A certain degree of temperature is suited to one species and unsuited to another. The green scum seen on stagnant pools in the hot months is not seen in the cold season; nor are those organisms which inhabit the water below the surface in summer, seen in fall and winter. So in dry and wet seasons. In the latter, decomposition of organic matter is supposed to be excessive; but the fact is, that, as moisture is essential to the growth of germs of all kinds, so in wet seasons, more organic matter is dissolved, and hence there is more abundant food for germs at such times.

The effect of these agents on germination is very easily demonstrated. If we expose a piece of muscle, for instance, to a temperature of 32° F. and keep it there a month, and then moisten a particle, and examine it under a high power, no organism will be found. Germs are doubtless adhering to its surface, but they do not develop, and will not in that latitude so long as the temperature remains the same. But elevate the temperature to 75° and in 48 hours it will be swarming with bacteria. Again; expose a piece of meat to a dry atmosphere at a temperature of 75°, and at the end of a month, moisten a particle and examine as before. No organisms will be seen, though germs adhere to the surface. Hence heat and moisture are conditions essential to germination in the case of micro-organisms; the first to dissolve the organic matter on which they feed, and the second to stimulate the vital force, resident in the germ, to activity, but not more necessary in their case than in that of the germs of complex organisms, the main difference between the orders being, that the germs of the latter have their pabulum associated with their structure, but those of micro-organisms have not. Complex organisms, have a digestive apparatus for the solution of their pabulum which supplies the vital units with properly prepared food: but micro-organisms depend wholly on the action of physical agents for a like preparation. The *when*, therefore, of

their action is the time they find their food in a state of solution and the temperature adapted to their vital action.

But these physical conditions may be present, and yet there may be no development of micro-organisms. There are other causes, therefore, besides dryness and an unsuitable temperature, that prevent these germs from developing. These agents are numerous. They are both organic and inorganic substances. Their presence with the pabulum effectually preserves it from their action. These substances are called antiseptics, because the growth of these germs produces a state or process in organic matter called septicism, a change in the fluids of an organism regarded as putrefactive, and a condition of things which antiseptics prevents. If these be present in any case where other conditions are favorable, the germs do not mature. They may not be destroyed unless the antiseptic is present in too great a quantity. In a proper quantity, they prevent germination of these organisms, but do not interfere with the vital process of that part of an organism where they are applied.

The vital force is the prime antiseptic. The vigor of this force is greater in a community of living cells in complex organisms, than in unicellular, though they may be equally numerous, a fact proved by the use of antiseptics. Yet it sometimes succumbs in parts of an organism to the inroads of another organism, as in the case of the destructive parasites. The reason of this may be found in the fact that these parasites consume the pabulum which supports the vitality of the part invaded, and destroys its function by the presence and growth of their tissue, whereas, in the case of micro-organisms, these, being unicellular, can not accumulate their force by the extension of connective tissue. When fungi attack the leaves of plants and produce blight, the function of the leaf in the part attacked, is destroyed, and its pabulum consumed; but the former result would seem to be the true cause of death.

[TO BE CONTINUED.]

Article LXXV.

The Importance of Local Mercurial Treatment in Syphilis.*

By A. H. Ohmann-Dumesnil, A. M., M. D., Professor of Skin Diseases and Syphilis in the St. Louis College of Physicians and Surgeons.

It is rather a safe assertion to make that there is hardly a physician who does not regard himself as perfectly competent to take charge of a case of syphilis. Since the time when the French called it the "Neapolitan disease," we have historical proof that mercury has been employed in its treatment and it stands to-day as the "sheet anchor" of the physician when dealing with this widespread disease. Not many years ago, it was the almost universal custom to require patients to employ mercurial inunctions. Latterly, however, since the advent of a numerous crop of manufacturers of pharmaceutical preparations, every drug of the materia medica has been converted into a more pleasant and palatable shape. The public in general has not been slow to learn this and the result has been a marked one in the manner of their administration. For the treatment of syphilis there have been prepared small pills or parvules, containing accurately measured amounts of the different mercurials and of an elegant appearance. So that when a patient is to be prescribed for one of his first requests being to have the medicine in pill form, if possible, as it is so convenient, these preparations are ordered. It is on this account and, of course, on account of other reasons that, of late, syphilis has been to a large extent treated almost exclusively by means of internal medication.

We know that syphilis is a so-called constitutional disease, infecting the system at large, and that all the lesions which make their appearance are but the outward manifestations of a cause at work internally. It is good logic to argue that if the cause be removed, the symptoms produced by it will also take their departure. But, clinically, we find that although this is true, it is attended by one disadvantage which is, that a greater length of time

* Read before the Missouri State Medical Association, May 13th, 1885.

is expended and a larger amount of medicine employed than if the treatment was also local.

It is a matter of daily observation, almost, to see cases of syphilis, treated by competent men, where the patients become discouraged simply because they perceive no improvement in the local lesions. They not only become discouraged but ofttimes life becomes a veritable burden from the fact that they carry upon visible portions of their bodies the imprint of their disgrace and imagine, not without some cause, that every one they meet suspects the presence of the trouble with which they are afflicted. The natural result in such a case is, that they apply to some one else and either improve under the use of local applications or, receiving the same treatment as before, seek out some new physician or go to some vaunted resort for the treatment of such cases and there, under high doses internally and vigorous external applications, improve temporarily and thus add fame and renown to a locality but little deserving of them.

This state of affairs is not to be attributed so much to the ignorance of physicians as to the fact that, of late years, writers and teachers, prominent in the profession, when speaking of the treatment of individual cases or of syphilis in general, seem to have taken it for granted that even the merest tyro in medicine is acquainted with the treatment of the pox; and it would be difficult to find one who would be willing to acknowledge that he was not. Basing themselves upon this, their descriptions of treatment have been but hasty generalized sketches, the details being omitted and no especial stress laid upon the local applications. From this has gradually grown the idea that mercurials administered internally are not only all that is necessary, but that they are as efficient as if accompanied by local mercurial treatment, a fallacy which is susceptible of being controverted by a single experiment.

This subject of local mercurial applications in syphilis is to-day attracting more attantion than it has done heretofore and a great deal of light has been thrown upon it, in consequence of this. Numerous experiments have been made with various preparations of mercury and both the endermic and hypodermic methods have been resorted to. Ointments of various salts of mercury have all acted favorably; some more so than others, either by producing less local irritation or by acting more rapidly. And it is the testimony of many that one of the best endermic

preparations is the freshly made grey ointment. Calomel ointment also has its advocates, whilst the oleate of the oxide of mercury is considered irritating to quite a considerable degree. The best preparation, as well as the most cleanly for this purpose, is the oleate of mercury in which the excess of oleic acid has been removed. By combining it with olive oil, in the required strength, a preparation is obtained which, for efficiency and ease of application combined with cleanliness, is unequalled. It further has the advantage of being unnoticed, attracting no attention by its presence as it is sufficiently transparent to permit the skin to show its proper color. In regard to the local hypodermics, various preparations have been employed, corrosive sublimate being perhaps in the front rank in regard to the frequency of use. Prof. Köbner, of Berlin, speaks highly of formamide of mercury, whilst others are equally as high in their praise of the tannate. Zeissl, Lewin and a number of others seem to be well satisfied with the bichloride, a number of French observers are enthusiastic over the good effects observed in the use of the albuminate, and there really seems to be but very little choice in the selection of these different forms. In regard to lotions of corrosive sublimate, of the formamide, of the tannate or of other salts, little is to be said as such a limited quantity of the drug comes in contact with the lesions as to affect them only to a small degree. Besides this, there is a lesser probability of absorption than when combined with more fixed agents such as the ointments or oils. For very light lesions and as a general detersive agent in the syphilodermata, Œrtel's mercurial soap can be employed. The benefit to be derived from it, in a therapeutical point of view, is but small; yet, as soap must be used whatever advantage is gained from this particular kind is so much in the patient's favor. J. D. Stiefel's sublimate soap contains one-half *per cent.* of the bichloride, in accordance with the suggestions of Prof. Bergman, of Berlin, and is perfectly odorless, and acts in the same manner.

Of course, one of the interesting questions in connection with the subject is, in what cases or to what lesions should these applications be made? And it may be answered, in general terms, that they are applicable to all the forms of the syphilodermata as well as to the initial lesion. Should the chancre be recognized as such and present no unusual appearances, it is hardly necessary to use any but simple detergent measures. Should it, however, take on a form or process inclined to be destructive, the local use

of mercury will not only limit this process but it will also hasten repair. The eruptions accompanying the secondary stage are all troublesome to a greater or lesser degree, with the exception of the roseola or erythematous syphiloderm. This latter is generally so light in character that the patient will have but little or no concern respecting it and frequently be entirely ignorant of its presence unless his attention be particularly directed to it.

Authors, as a rule, recommend us not to make local applications to this form, as the internal use of mercury is sufficient to cause it to disappear. But, although this may appear to be a very valid reason, the external use of some mercurial preparation has this advantage, viz., that it prevents the subsequent pigmentation or diminishes its intensity considerably. In the papular, tubercular, squamous, and ulcerative forms we have a valuable adjuvant to the internal medication in the use of local mercurials. And not only in these but even in gummata good results are frequently seen; whilst in the moist papules or condylomata it will often happen that these lesions will become intractable and not amenable to the most energetic internal treatment whilst they speedily yield to local medication. It is unnecessary to enter here into a detailed account of the various manners in which to employ these local measures, nor would it be within the province of such a limited paper to give minute descriptions of the different local conditions requiring such treatment, and in what particular stages it would prove most beneficial.

There is one point, however, which ought not to be omitted and that is a mention of the fact that these limited local applications exert their influence, not by virtue of being absorbed and disseminated through the system at large, but because they act locally and within a very limited area. This fact has been demonstrated again and again. It has been found that local troubles existing upon the arms will not yield to local medication applied to the soles and feet, and yet lesions of the leg were benefitted to a considerable extent. In cases of condylomata only those, in whose immediate neighborhood hypodermic injections were made, dried and disappeared, others at comparatively remote points remaining until treated in a similar manner. I have found that, in suppurating tubercular lesions, only those to which the applications were made yielded and others had to be submitted to the same process before any amelioration took place.

It may not be out of place here to mention the fact that fre-

quently indurated or even enlarged lymphatic glands will be considerably reduced, even to their normal size and consistency, by the local use of mercurials. The same is true of the pigmentation caused by syphilitic eruptions. Although this latter will not always yield to the topical use of mercury, it will very frequently diminish and the intensity of the color, which is often so distressing to the patient, will be toned down to a much lighter shade.

In conclusion, the writer would state that no attempt at originality has been made. That the object of the paper is merely to draw a little more attention to one of the details of the technique of the treatment of syphilis, an operation which, the more it is studied, the more complex it appears. To reduce our art to a science is what we are striving to attain and the only method to arrive at this much-to-be-desired result is by the study and observance of the minor details.

ARTICLE LXXVI.

THE THERAPEUTIC AND OPERATIVE TREATMENT OF HIP DISEASE.

By REYNOLD W. WILCOX, A. M., M. D., Clinical Assistant at the Post Graduate School of Medicine, Physician to the North Eastern and Demilb Dispensaries, New York City.

In this Journal, for December, 1884, the writer discussed the Mechanical Treatment of Hip Disease. The conclusion arrived at being, that, of all apparatuses, the one invented and used by Mr. Thomas, of Liverpool, was best adapted to meet the indications for treatment and the theory of its use was in accordance with physiological investigations. The cases upon which this and the preceding article are based, were about sixty in number and were under observation in 1880 and '81, being under competent supervision. In these cases all the leading types of apparatus were employed, and, as far as was possible, in accordance with the views of the inventor. The conclusion that seemed to be the only one possible, after careful comparison of results, is the one given above. There yet remains, to complete the sub-

ject, the two divisions of treatment indicated in the title of this article.

In the minds of many practitioners, apparently, the terms therapeutic and expectant treatment are very similar. Yet, in fact, this is by no means the case. The writer has seen cases in which good results were obtained with continuous rest in bed with simple drug treatment, even, indeed, where the history of the case left no reasonable doubt but that the bone had been thoroughly involved. In fact this plan, by some termed expectant, seems far preferrable to any in which apparatus, permitting motion at the hip joint, is used. But the term expectant has a wider signification, in that the attendant is supposed to meet new conditions as they arise, indeed circumstances might even render it necessary for him to perform the operation of excision. Taking the term in its broadest sense one can understand it to mean the rational treatment of the disease in question. But there is, after all, a purely drug treatment that deserves attention. In placing the patient under the best possible hygienic conditions, much good can be accomplished and, indeed, to this cause alone may be attributed much of the success attained in hospitals. Of the articles in the Materia Medica, cod-liver oil holds by far the first rank and is the sheet anchor of treatment, next, the syrup of the iodide of iron has its reputation based on clinical experience, no matter what views we may entertain in regard to the relation of hip disease to scrofula. To add another preparation to the list, the bichloride of mercury, as it is usually administered with the compound tincture of cinchona, has an apparently well grounded reputation. Relief of pain is important, which can usually be adduced by fixation, so that opiates are seldom necessary. Counter-irritation, although but few physiological facts seem to warrant its employment, has always been a resource frequently employed. The more violent forms, as friction with liniments, issues, setons and the actual cautery, about which so much is contained in the earlier literature, increased observation has justly placed among the obsolete practices. But in the early exacerbations, blisters, and at other times counter-irritation produced by the strong tincture of iodine, have held their place and seems, from the clinical point of view, to be useful.

Among the operative procedures the treatment of abscesses has always received much attention. In the past, many and varied opinions have prevailed. All methods will fall into more

or less deserved disrepute unless it is always considered that before any treatment is instituted the joint must be absolutely fixed. Thorough examination of old recovered cases of hip joint disease will usually show extensive and often multiple scarring from abscesses, in fact some high authorities contend that better joints, and less pain and tenderness, are found where the suppuration has been great and the abscess left without particular treatment. This opinion seems to be based upon the former disinclination to interfere with cold abscesses. However, of late better results are claimed from antiseptic aspiration or if the pus be too curdy, free incision, careful removal of all pus secreting surfaces. If this is done with thorough cleanliness and perface fixation, certainly one element of danger, to the life of the patient, is removed. The dressings should be those always remaining porous.

Anchylosis in an unfavorable position, where the treatment has been fixation, can hardly occur but, in such a case, if it be fibrous, the proper position can be obtained by fitting the Thomas splint and gradually reducing the deformity. Œnotomy or myotomy may be, in rare cases, necessary. In bony anchylosis we have the choice of several operations, for each particular case, the best will be that one which permits section to be made nearest to the joint. If possible it should be made above the insertion of the psoas and iliacus muscles. No one is credulous enough to believe that a fully equipped artificial joint will ever be produced by surgery.

Excision of the hip joint is an operation in which those who have been unfortunate in receiving badly treated cases and those whose methods have been faulty, have had the largest experience. This operation is far too formidable and produces results hardly satisfactory enough to be considered in the early stage of the disease. Drilling of the head of the femur can never be substituted for it, as the seat of the disease is by no means always in the head of the femur or even accessible in that method. Excision is indicated when all other forms of treatment have failed and the disease is rapidly exhausting the patient; since in this way the surgeon may extend to him every possible chance for life. Yet extensive statistics show that about thirty *per cent.* of cases in which this operation has been performed, die from exhaustion, while of those that survive about thirty-five *per cent.* obtain useful limbs. Usually, however, the cure without operation affords better chances for limbs sufficiently strong for sup-

port. How much shortening will result can never be determined, for of the published cases, many have been found in after years where it was far in excess of the amount stated in the tables. Unfortunately the number of cases operated upon has been very large, so that the best method of operating is now well understood. The curved incision, posterior to the greater trochanter, the periosteum being, so far as is possible, saved, all diseased products removed, thorough fixation and cleanliness in after-care are all that need be insisted upon.

Amputation may be considered, when excision has failed to arrest lardaceous disease, or if there be such shortening and deformity, or such extensive necrosis of the femur that excision, if performed, would result in an entirely useless limb.

May, 1885.

ARTICLE LXXVII.

THE AMERICAN SURGICAL ASSOCIATION.* By DAVID PRINCE, M. D., of Jacksonville, Illinois.

This is a Society limited by its constitution to one hundred members, founded by the late Dr. S. D. Gross, of Philadelphia, and of course its first members were selected by him from among those toward whom he had a friendly regard.

The members are now introduced by recommendation of a *council*, sanctioned by a vote of the association, three negative votes negativing the recommendation of the council.

The association has one meeting annually, lasting four days, and the plan is to have presented and discussed two papers a day. This plan enables the members to subject a paper read to sufficient discussion.

The subjects and the writers are selected by the president and announced through the secretary to the members several months before hand, in order that there may be proper preparation for discussion.

---

* Read before the District Medical Society of Central, Ill.

At the recent meeting in Washington, Dr. N. Senn, of Milwaukee, presented a long paper detailing recent experiments and observations by himself explanatory of the processes which attend the ligature of vessels, in which he came to the conclusion that the clot above the ligature upon an artery serves only a mechanical purpose, to be taken up and carried away as in the case of a clot any where else, surrounded by living tissues: that the safest provision against secondary hæmorrhage from a large artery is to tie it in two places by an animal ligature and slit open the intervening portion, in order to let out the imprisoned blood and to permit the interior surfaces to coalesce by plastic effusion resulting in direct union as occurs between peritoneal surfaces.

He regarded former experiments in which the management permitted suppuration, as faulty in their lessons for practical surgery; because the presence of the ligature and its surrounding pus caused a breaking up of the repair, by which the parts have been consolidaded by new formations. Hence the importance of the employment of ligatures which, by previous treatment, are free from the germs of septic microbes, and of a management which secures healing without suppuration. By this management, all the deposits serve as defenses against hæmorrhage, and it matters little whether or not the internal and middle coats of an artery have been cut by a tight ligature, permitting immediate union between the severed edges of those coats of the vessel.

Many observations upon animals were detailed in which the behavior of the veins and sinuses of the brain were investigated. It was found that the longitudinal and the lateral sinuses could be plugged by a septic sponge and left permenently in place, and that in process of time the material of the sponge would be absorbed.

Many experiments in the introduction of air into veins and the behavior of the heart in its presence lead to the conclusion, that it will never enter unless the place of entrance is higher than the heart and that no serious inconvenience arises, if the entrance is slow and small in amount. That the cause of the cessation of the heart's action is the emptying of the arteries of the heart itself. Hence there are two preventions; position and a perpetual douche of water during the process of the operation.

Dr. J. Collins Warren, of Boston, related many experiments

and observations upon arteries treated by ligatures. The observations were made without antiseptic management; the ligatures cut long in the old way, and permitted to hang out through the wound, ultimately cutting through the vessel and coming away though the eroding processor attendant upon suppuration.

A long paper was presented by Dr. John B. Roberts, of Philadelphia, upon the management of injuries of the head, taking extreme ground in favor of exploratory measures, finding that when such precautions are taken, such as are found to prevent suppuration in other wounds, the brain, its membrane, and substance may be exposed to the air with impunity.

This leads to the maxine: If there is any doubt whether or not the scull should be trephined; trephine.

The same immunity as in other parts attends the exploration of the brain for abscesses and the introduction and management of drainage tubes for the perpetual cleansing and drainage of abscesses in the brain, whether orginal or the consequence of the presence of foreign bodies.

The paper embraced a reference to the science of localization of disease and injuries in the brain, by the symptoms of paralysis, spasm and other perversions of nervous function, and the aid of these symptoms in the search by instrumental exploration for lesions supposed to be located according to the indications of symptoms.

Dr. W. S. Goutey, of New York, made a presentation of the subject of enlarged prostate in old people and the best management. The use of the soft catheter with well polished eye, (and only one eye) he thought a great improvement upon the stiff catheters formerly in use.

He said that all that we know upon the subject is due to the researches of Merciéve, of Paris, and that he himself, and his coworkers had only attended to details.

Dr. P. S. Connor, of Cincinnati, read a paper on tetanus, claiming that the origin, course and symptoms pointed to a bacterial origin rather than one consisting in reflex action.

He did not claim that the microbes had been found which are supposed to cause the disease.

In the discussion which followed several member reported cases following the wound inflected by the toy pistol.

Dr. C. T. Parkes, of Chicago, related a case of removal of the gall bladder enlarged in consequence of stenosis of the common

duct and the opening out of this duct and the restoration of the flow of bile into the duodenum.

Not only had the gall bladder become greatly distended but the liver itself had become greatly enlarged by the arrest of the discharge of bile and the distention of the bile ducts. A second operation was performed before the common duct became permanently open. The patient made a good recovery after a protracted convalescence.

A paper by Dr. J. Ewing Mears, of Philadelphia, on phosphorus poisoning was accompanied by photographic illustrations and bone specimens.

One fact of practical importance was communicated, that is, that the breathing of the vapor of turpentine is antidotal.

The probability is that the limit of membership will be enlarged by changes in the constitution and the introduction of members from all parts of the country.

ARTICLE LXXVIII.

PRURITIC CATARRH OR HAY-FEVER—ITS TREATMENT.* By J. A. STUCKY, M. D., Lexington, Ky., Surgeon to St. Joseph's Hospital, Member Ky. State Medical Society, Vice President AMERICAN RHINOLOGICAL ASSOCIATION, etc.

In calling your attention to the subject of Pruritic Catarrh or so-called Hay-Fever, I am not unmindful of the fact that I am but adding to an already over filled list of contributors to the literature of this subject.

The many conflicting theories as to the etiology and pathology of this disease, stimulates me to contribute my mite. Probably no disease of the superior respiratory tract causes more suffering than so-called Hay-Fever. I shall not enter into a detailed description of the symptoms, etiology or pathology of the disease but am led to offer a few suggestions as to the treatment, because of results obtained. In the beginning, I desire to enter a protest against the term "hay-fever" and all other names of

* Read before the American Rhinological Association, Oct., 1884.

similar nature, giving as a reason, that the terms used to designate the disease in question are meaningless, hence not entitled to the respect they now have. You are doubtless aware of the fact that I am not alone in taking this view but am simply following in the wake of Dr. T. F. Rumbold and joining with him in the plea for a name more expressive, appropriate and descriptive of the disease.

If the odor of hay, roses, etc., were the only known causes of this disease, we would be satisfied with the time honored names *hay-fever*, *rose-cold* etc., because they would indicate its nature.

In a recent article on this Subject Dr. Rumbold says: "If the name indicate that a certain prominent fact or feature of a disease is constantly present so as to distinguish it from other diseases, where such *is not* the case, then most certainly the misguiding name should be discarded; as its retention will be very liable to lead to an erroneous diagnosis, and thus a case might be excluded from its proper class, and, as a consequence, be improperly treated". Dr. G. M. Beard, a leading authority, "Admits the substantial identity of Autumnal Catarrh and June Cold, etc."

The inappropriateness or rather insufficiency of the term hay-fever is now quite generally admitted; for even where the predisposition exists, hay of any kind, fresh or dried, acts as an exciting cause in but a minority of cases and rarely, if ever, is it the only irritant that gives rise to the paroxisms. Yet the phenomena of the disease are alike in all cases whether they occur in the Spring, Summer, Fall or Winter.

Without discussing this part of the subject at any greater length, I accept the name, suggested by Dr. Rumbold, as being the *most* appropriate because most descriptive of the disease.

I quote at length from a recent article by him.

"Pruritic Rhinitis or Itching Nasal Catarrh, is the name selected for this, as yet unexplained, phenomenon. This name is descriptive of its most prominent characteristics namely: *itching*, *inflammation* and *flow of mucous*. The attack is ushered in by an itching of the nose and face; this soon affects the eyes, causing intense suffering. The itching sensation in the nostrils gives rise to prolonged sneezing, this in turn makes the eyes worse; the itching soon reaches the soft palate and fauces, and to relieve these parts of the same sensation, the tongue is used to rub them. As the tickling is not relieved, a rasping cough is tried which is so persistently continued that the throat soon becomes sore, and,

in older sufferers, shortness of breathing ensues, and symptoms of asthma are developed."

"Because of the uniformity of this symptom—*itching*—and the fact that it is always accompanied by inflammation, the name suggested indicates the *first*, the *principle* and most *prominent* symptom, which is characteristic of the malady at whatever season of the year the victim is attacked, and it is by no means misleading". I have already referred to the numerous causes (?) of this disease, which I shall hereafter designate as *Pruritic Catarrh.*

It matters not what the exciting cause may be, whether pollen of hay, parasites—animal or vegetable—bacilli, odor of rose, inhalation of dust, or what not, the one fact I have been able to demonstrate in every case I have seen, is this, that the disease is preceded by a nasal catarrh, and relief of the catarrh was relief of the "hay-fever." In every case examined by me, I have found the middle and inferior turbinated bone covered with hypertrophied mucous membrane; and during a paroxism the nasal cavities were completely closed by a swollen membrane, giving rise to the uncomfortable feeling and frequently excruciating pain in the eyes, cheek, frontal region, and in a few cases intense pain in the back of the head. A brief glance at the anatomy of the parts will easily convince us how that by completely closing the openings that lead from the autrum of Highmore, Frontal, Sphenoidal and Ethmoidal sinuses, as well as the lachrymal canal, will give rise to all of the symptoms referred to. In addition to closing of these cavities the inflammation extends into them in some cases, giving rise to alarming symptoms.

The membranous linings of these cavities is similar to that of the nasal fossæ. Whenever the nasal mucous membrane is in an active state of inflammation, which is attended with a great degree of swelling the communication with the cavities mentioned must be shut off, and the accumulating fluids press against their boundaries, and as the pressure increases the pain becomes more intense. This pain ceases as soon as the imprisoned fluid finds an exit through its natural passage.

American Journal of the Medical Sciences. July, '83 Dr. MacKenzie, of Baltimore, Md., says:

(1.) "That in the nose there exists a well defined, sensitive area, whose stimulation, either through a local pathological process, or through the action of an irritant introduced from with-

out, is capable of producing an excitation which finds its expression in a reflex act, or in a series of reflected phenomena.

(2.) That this sensitive area corresponds, in all probability, with that portion of nasal mucous membrane which covers the turbinated corpora cavernosa.

(3.) That reflex cough (or asthma) is produced only by stimulation of this area, and is only exceptionally evoked when the irritant is applied to other portions of the nasal chamber.

(4.) That all parts of this area are equally capable of generating the reflex act, the most sensitive spot being probably represented by that portion of the *membrane* which clothes the posterior extremely of the inferior turbinated body and that of the septum immediately opposite.

(5.) That the tendency to *reflex action varies in different individuals*, and is dependant upon the varying degree of *excitability* of the erectile tissue. In some the slightest touch is sufficient to excite it, in others chronic hyperæmia or hypertrophy of the cavernous bodies seems to evoke it by constant irritation of the reflex centres, as occurs in similar conditions of other erectile organs, as, for example, the clitoris.

(6.) That this exaggerated or disordered functional activity of the area may possibly throw some light on the physiological destiny of the erectile bodies. Among other properties which they possess, may they not act as sentinels to guard the lower air passages and pharynx against the entrance of foreign bodies, noxious inhalations, and other injurious agents, to which they might otherwise be exposed?"

The physiological phenomena referred to by the author, are "to be found in the doctrine of correlated areas, the reflex taking place through the naso-dilator nerves from the superior cervical ganglion of the sympathetic."

In the beginning of an attack of Pruritic Catarrh the first symptom is intense itching of the nose accompanied by sneezing. Gradually the nasal fossæ fill up, until nasal respiration is entirely prevented. When the disease has reached the point of occluding the nares, by infiltration and inflammation of the Sneiderian membrane, then the frontal and occipital *ache*, with pain in the cheeks, accompanied by alternate chilliness and heat and a feeling of general discomfort with loss of appetite, pyrexia and general malaise. Frequently do we meet with cases of inflammation of the middle ear, that has extended through the eus-

tachian tube, following attacks of Pruritic Catarrh. I need not remind you that during a paroxysm, the senses of taste, smell and hearing are much impaired, and soon the sufferer becomes prostrated. I shall not consume any of your valuable time by giving a description of the symptoms, with the history of the cases I have treated. Will only say, that of all the cases I have recorded every one presented *all* or a *majority* of the prominent symptoms characteristic of the disease. In concluding this part of my subject I agree with Dr. Harrison Allen that there is "nothing peculiar to the disease, save its sharply defined periodicity, particularly in that phase of it where the periods of recurrence happen to coincide with the time of the fruitage of certain plants, or the gathering of certain crops."

I now ask your attention to a consideration of the method of treatment employed for this class of sufferers. If, as we have stated, the disease is due to a nasal catarrh, and the paroxysms—asthmatic—are brought on by an *irritant* of some kind, then the logical inference is, get rid of the catarrh and you get rid of the sequelæ, of which Pruritic Catarrh (hay-fever) is the most annoying—for where the soil is in a proper condition and seed sown, it sprouts spontaneously. "*Remove the cause, and cure the disease.*"

During a paroxysm our treatment is palliative only. That we can in every case palliate and cut short the aggravating symptoms I have no doubt. Experience has demonstrated this. The treatment employed by me is that used by Dr. Rumbold, with some modifications. If a patient presents himself during an attach I gently apply, by means of the spray, one-half drachm of the following mixture.

℞ Acid Carbol.....gr. j.
Ol. Eucalyptol (Saunders).....M ij.
Boric Acid.....gr. x to xx.
Glycerine.....℥j.
Vaseline.....℥vij.

One-half dram of this mixture is placed in the bowl of the spray tube, heated and applied by means of compressed air, gently and thoroughly to the entire pharyngo-nasal and post nasal cavity. The relief in a majority of cases is almost immediate. The spray tubes used in this treatment are those invented by Dr. Rumbold, and in them we have a perfect instrument for thoroughly cleansing and medicating the entire superior respiratory tract.

In a few cases it is necessary to omit the eucalyptol on account of its stimulating qualities, when this is necessary I use the same mixture with this exception. The properties of Boracic Acid need no eulogizing, they are well known, as antiseptic, slightly stimulating and soothing. Strong astringents or irritants of any kind not only do harm in this variety of nasal trouble *in the acute stage* but in all varieties. Our treatment should always be soothing, avoiding everything that irritates, this applies only to local medical treatment and not to the surgical.

I not only use Boracic Acid in this firms of nasal trouble, but in other, principally the hypertrophic, in strength varying from 5 to 30 grs to the ounce, always using vaseline as the excipient and applying by means of spray. The application of this remedy in the manner suggested is made daily for a week, then twice a week until the disease is checked and symptoms disappear. Usually after the first or second treatment, patients express themselves as being relieved. This treatment suggested has given me excellent results in mild forms of this complaint in adults and still better results in treatment of children and persons under 25 years of age. The way in which the remedies relieve I suppose to be due to the fact that they remove, destroy or render inert the irritant that is imbedded in the mucous membrane, and by their soothing action reduce the inflammatory action and thus relieve the pent up secretions in the sinuses and cavities connected with the nasal organ.

I do not pretend to say what the exciting cause of this disease is, what causes it in one will not in another. The one fact I desire to emphasize is, the formary cause in every case is nasal catarrh. After relieving a case of the most prominent and distressing symptoms, and nasal respiration is thoroughly established; the inflammation and infiltration all gone, an examination with the rhinoscope (posteriorly) will reveal a mass—(varying in size from a small buck-shot to size of a hazel nut)—of hypertrophied tissues over the posterior extremity of the inferior or middle turbinated bone, more frequently the former.

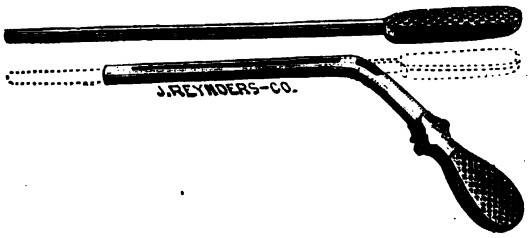
The treatment already suggested, I stated, was palliative, and I desire now to speak of the radical treatment, which consists in the removal of the hypertrophied tissue. This is accomplish by means of the Jarvis Snare or, more frequently and preferably, by Chromic Acid. In the use of this agent my experience coincides with that of Dr. F. Donaldson, of Baltimore Md., who says. "We

have found chromic acid a powerful escharotic, not causing pain or hæmorrhage and, when cautiously used, perfectly under control.

Its action is that of a prompt solvent of organic matter. It rapidly oxidizes and decomposes the tissues. It loses one half of its oxygen, and is itself converted into the inert sesquioxide. It is, at the same time, an antiseptic, and disinfectant. It appears, according to Wood and Bache, "to owe its antiseptic action to its power of coagulating albumen and all protean compounds, in which it has been found to exceed all the acids and metallic salts that have been tried, being ten times stronger than carbolic acid, fifteen times stronger than nitric acid, and twenty times stronger than bi-chloride of mercury. *It gives less pain than other caustics.* It is one of the most powerful destructive agents to inferior organic life, greatly exceeding carbolic acid in this respect. The method by which we apply the chromic acid (*paste* made by adding just enough water to render it semi-solid) is to first dry the parts with absorbent cotton wrapped around a nasal probe, this should be done very gently so as to not excite sneezing or cause pain? If the drying process cause either it should be discontinued. If the application is to be made to posterior extremity of turbinated bone, the instrument represented in Fig 3. is used. This is a modification of Dr. Andrew Smith's grooved catheter for cauterization of nasal mucous membrane by means of fuming nitric acid. This instrument is smaller and much easier introduced, the canula is flat and not round. Length of tube 6½ centi.; flat inside; probe extent 2 centi.; length of handle 5$\frac{8}{10}$ centi.; circum. of tube 1½ centi.; length of probe 9½ centi. There is no need for *slot* on top of tube as represented in the drawing. It will be noticed that the probe is 3 centi. longer than the tube or canula. The probe is passed through the tube and around its distal extremely a small piece of absorbent cotton is twisted and on one side, the side on which the application is to be made, the chromic acid paste is applied; the probe is then withdrawn into the tube; the tube is now oiled with vaseline and gently pushed into the nasal fossæ through the space between the lower turbinated bone and the septum until the point reaches the hypertrophied mass to be destroyed. This can be ascertained by the touch or by posterior rhinoscopic examination. After reaching this point the tube is steadied by grasping the handle with thumb and forefinger and placing the little finger (of same hand) on lip or

cheek of patient and with the other hand the probe is pushed through the tube, then by depressing and elevating, alternately, the handle the entire mass may be thoroughly touched with the cautery. After accomplishing this, the probe is again drawn into the tube, and the instrument withdrawn. The cavity is now to be sprayed with Dobell's or some Alkaline solution which relieves any pain caused by the application. By the use of this instrument we can avoid the touching of any part of the mucous membrane that we desire, the cautery being concealed our application can be limited or general.

Fig. 3.



Where the mucous membrane is hypertrophied and pendulous, over the entire inferior turbinated bone, the application is made

Fig. 4.

with instrument represented in Fg. 4. which is similar to Fg. 3. In this instrument the tube is closed at its distal end and has slot on side.

Length of tube 9½ centi.; length of handle 6 centi.; circum of tube 1½ centi.; length of slot 4½ mil.; length of probe 9 centi.

The tube is inserted into the nasal cavity with the slot to the side of the hypertrophy, the probe, covered with absorbent cotton and the chromic acid, is then pushed quickly thought the tube and the application made to the entire lower surface of the inferior turbinated bone. "The affinity of the acid for organic matter is such that it acts immediately. There is no pain of consequence resulting, and no bleeding. After the first applica-

tion, our view of the remaining portion is not obscured by blood." Two or three applications is all that is necessary to remove the largest hypertrophy of mucous membrane that I have seen. I never apply the acid oftener than twice a week. After destruction of the membrane, it can be easily removed with small forceps or with loop of no. 5 piano wire attached to a probe. The after treatment consists in making applications on alternate days of the Boric-acid-vaseline mixture before mentioned.

In addition to the treatment already suggestd, a tonic is always given, the one generally employed by me, and with most gratifying results, is the Syr. of Hypophos. of Lime and Soda with Iron and Strychnine.

This preparation I have used largely for several years, and, as made by Mr. T. B. Wood, of Lexington, Ky., it has no equal, as a general tonic, that I know of. Each drahm (teaspooful) contains 2 grs. each of Hypophosphite of Lime and Soda, 1 gr. of Phosphate of Iron and $\frac{1}{12}$ gr. of strychnine. A teaspoonful is given three times a day. For the itching and burning of the eyes, a Sol. of Boric Acid, 10 gr. to ʒj, is frequently used. For the rasping cough and headache, 5 gr. salicine, 3 gr. ammon. mur., ½ gr. extr. belladonna, in capsule every 2 or 3 hours until relieved, has afforded good results. Sufferers from this disease are greatly annoyed by cold sweaty feet. Bathing the feet in salt water night and morning, rubbing them dry, and thoroughly applying vaseline, soon relieves this.

Since the preparation of this paper in Oct., 1884, the discovery of the magic effects of muriate of cocaine has somewhat changed my views of the treatment of Pruritic Catarrh. In the past three months I have had 5 cases of the most aggravated variety of this disease and have been able to give each one immediate relief by the use of a 4 *per cent.* Sol. of Cocaine. It was applied by means of absorbent cotton wrapped around a thin piece of whale bone, about 2 inches long, thoroughly saturated with the cocaine, gently inserted into the nostril. The first application was allowed to remain 8 or 10 minutes, when it was removed and a similar one made, using fresh cotton and cocaine. The second application was allowed to remain ten minutes longer. When it was removed and the entire *lower border* of the inferior turbinated bone, as well as the posterior surface of the inferior and middle turbinated bones, were thoroughly cauterized with Chromic Acid. Only one

nasal cavity was treated the same day. The after treatment has been the same. There has been no unpleasant result following this treatment, save a slight pain in the upper jaw and the eye of the side to which the application was made, which came on a few minutes after and lasted from a half to one and a half hours. With the use of cocaine I feel certain in promising my patients not only temporary relief, but destroy the hypertrophied tissue, in the acute stage, thus cutting short at once the disease. For several days after this operation there is a profuse discharge of mucous but no return of the annoying hay-fever (?) symptoms, if the offending tissue is thoroughly removed.

When this operation is performed during the acute stage, I always advise rest of both mind and body for several days and make the application of Boric-Acid-Vaseline with from 10 to 15 drops of the cocaine solution daily for a week.

I feel that I can endorse all the good that has been said of the local anæsthetic properties of cocaine. In an extended use of it in the nose and throat it has, in my hands, accomplished all that could be desired and with it we can now accomplish, what—a few months ago—would have taken weeks and months.

Original Translation.

ARTICLE LXXIX.

TRANSLATION FROM THE PORTUGUESE.

COCAINE, A NEW LOCAL ANÆSTHETIC. Translated from the *Gazeta Medica*, da Bahia—Brazil (Translated from the Portuguese. By JOSEPH WORKMAN, M. D., of Toronto, Canada.

In numerous American, English, German and French publications, the local anæsthetic virtues of cocaine have been highly praised.

This substance appears to have been isolated and extracted, for the first time, from the leaves of coca (Erythroxylon Coca) by Niemann in 1860, but some claim the priority for Gadeke. In 1862 Lossen discovered in the leaves a second principle, of a vola-

tile nature, which he called hygrine. The other constituents of the plant are ecgonine, tannine of coca and a peculiar wax. Cocaine is met with in the leaves in the proportion of 0.02 to 0.2 *per cent.* ($\frac{1}{15}$ to $\frac{1}{8}$ of one *per cent.*)

Cocaine (represented by $C^{17}\ H^{21}\ N\ O^{1}$) has a bitter taste, and crystallises in brilliant monoclinal prisms. It is soluble in 704 parts of water, and likewise promptly so in alcohol, chloroform, ether, vaseline, oil of cloves and castor oil. When treated by chlorohydric acid it gives ecgonine. It combines with the acids to form salts, the best known of which are the hydrochlorate, the citrate, the nitrate, the sulphate, the oxalate and the tannate.

The hydrochlorate is the salt commonly used. It presents itself in the the form of small white needles, which, in some specimens, are so diminutive as to give them a rather amorphous appearance, when viewed unenlarged. They have a characteristic smell, are soluble in water (1 to 4), also in alcohol. The salt possesses antiseptic properties: an aqueous solution of 5 *per cent.* retards putrefaction of flesh for some days. The citrate forms small white crystals: it is the most convenient salt for dental operations.

As regards the physiological action of cocaine, not much can be said to be known. Niemann, in 1860, had observed that when it was applied on the tongue it produced anæsthesia. Schroff, in 1862, observed that in doses of 5 centigrams, it produced disturbance of the respiration and the circulation, and caused a transient mydriasis. Frommueller, one year afterwards, found that its effects on man, in doses of 3 to 38 centigrams ($\frac{1}{18}$ to 5 grains) were almost *nil.* In 1874, when Bennett published his remarkable work on the physiological action of theine, caffeine, guaranine, cocaine, and theo-bromine, he showed that cocaine acts principally on the sensory nerves, and that it is an anæsthetic. In 1879 Dr. Ott published a work on cocaine, and proved that it dilated the pupil.

These observations appear to have been forgotten, and in spite of the large employment of the different preparations of coca, the active principle of the plant was rarely employed, and its existence was probably unknown to the majority of practitioners. On the 5th of September (?—1879), however, Dr. Karl Koller, of Vienna, demonstrated in the ophthalmological Congress at Heidelberg, the effects of a solution of cocaine when

applied to the eyes. He, as it would seem, knew that it acted as a local anæsthetic on the larynx, and it occurred to him that the same result ought to be obtained on other mucous tissues.

In the clinique of Heidelberg two drops of a solution were experimentally instilled into the eye of a patient, and in a few minutes it was found that sensibility of the ocular surface was below the normal. One or two drops more rendered the anæsthesia complete; the cornea was depressed until a visible sulcus appeared; the surfaces of the conjunctiva and the cornea were rubbed, a speculum was introduced, and the palpebræ were drawn apart, and distended as far as possible, the conjunctiva was laid hold of with a pair of small forceps, the globe of the eye was moved in various directions without any pain being felt, and the person experimented on declared that he did not feed the least disturbance. Before the experiment, the normal sensibility of the part had been ascertained, and the other eye, which was not interferred with, continued throughout perfectly normal. At first the solution used was 2 *per cent.* subsequently it was raised to four.

Professor Agnew, of New York, in relating his experience said: "We employ the new agent in our clinique in the college of Physicians and Surgeons, with the most admirable and satisfactory results. If its ulterior employment be equally satisfactory, as it is to be presumed it will, we possess a substance of inestimable value in the removal of pain in ocular operations. It is difficult to refrain from expressions of enthusiasm, in view of what has been already realised, and of what may reasonably be expected from future applications." He narrated minutely six cases of various operations on the eyes, made without any other anæsthetic except the cocaine, the results in all of which were most satisfactory.

Professor Knapp, of New York, made several experiments on himself and persons of his family. The following were the results of his experiments:

On the ocular apparatus. The instillation of a solution of 2 to 4 *per cent.* of the hydrochlorate of cocaine on his eyes, produced no inconvenience. During and after its action the conjunctiva did not change in appearance; it was neither congested nor swollen. The fundus of the eye, when examined through the ophthalmoscope, remained unchanged. The same result was found in relation to the movements of the ocular globe. If any

difference existed in the *tension* of the globe, which could not be positively ascertained, it was on the side of decrease.

The diminution of sensibility in the cornea and conjunctiva varies in degree in different individuals. In the majority of cases it comes on in three minutes after the instillation; it increases up to the end of ten minutes; then it decreases, and in half an hour after, it has passed away. When a second instillation is made, ten or twenty minutes after the first, the anæsthesia is more intense; the part is absolutely indifferent to superficial contact, and the sensibility is more durable. In an hour after the first instillation it is very trivial, and in an hour and half it disappears.

The pupil commences to dilate in ten to twenty minutes after the application; it increases variously; in some persons it becomes as large at the end of thirty, forty or fifty minutes as from atropia, and it continues stationary for about thirty minutes, after which the effect passes off variously.

The extent of accommodation is shortened, as regards the proximate point of vision, but the distant point is not appreciably changed. This shortening was limited, and it differed somewhat in the different observers; in the author it was equal to $\frac{1}{86}$ (D); in his son, aged 15, it was the same; in Mrs. K. it was greater. Cocaine affects the accommodation as the mydriatics do. It does not, however, cause paralysis. It may, nevertheless, be preferable to the other mydriatics, if it is necessary to dilate the pupil in ophthalmoscopic examinations of the interior of the eye, but it is probably not sufficiently powerful for determining refractions. It is a mydriatic which, even when producing a maximum of pupillar dilatation, hardly lessens fractionally the power of accommodation.

In Mrs. K. and the author, astigmatism was manifested very distinctly; the letters appeared to be oblique, from left to right; the left eye in each was the "cocainised" one. The obliquity in Mrs. K—was more evident in proximate vision, but in the author in distant vision. The obliquity of the letter N was about 15 degrees to the right, and it was corrected by a $+\frac{1}{7}$C. ax 110, etc.

The accommodation power returned sooner than the normal dimensions of the pupil. In one, one and a quarter, and one and a half hours, the cocainised persons could read as easily as before the experiment, although the pupils were still considerably dilated.

On other mucous tissues.

1st. In the ear: In a case of polypus, after removal of an exostosis; the part was very painful; scraping was done after two instillations of cocaine, with manifest diminution of the sensibility of the superficial coverings.

2nd. *In the mouth*: The tongue and the palatine mucous covering became torpid. By irrigation or washing of the mucous covering, the experimentor was enabled to pass instruments during ten minutes, trying to provoke vomiting, without pains or reflex movements, etc.

A solution of 4 *per cent.* being applied with a brush on the right half of the tongue, and repeated seven minutes afterwards, this side of the tongue and the corresponding portion of the lip became torpid. Soft contact was not perceived, but the contrary was realised on the opposite side. Finely pulverised sugar placed with a brush on the insensible part gave no taste, but at the same time the taste was perceived immediately on the opposite side. The same happened with a solution of 1 *per cent.* of sulphate of quinine. In half an hour all returned to the normal condition. *Cocaine locally and temporarily abolishes not only the sensibility of the tongue and the pharynx, but also the sense of taste.*

3rd. *In the nose:* In order to obtain conclusive results, the experimentor required to make repeated irrigations, with the small apparatus of Richardson, introducing a curved tube into the middle and upper passages of the nasal fossæ. *Cocaine renders the nasal mucosa temporarily insensible, and abolishes the sense of smell.*

4th. *In the larynx and trachea*: The experiments of the author, made on himself with a Richardson irrigator, established the same anæsthetic facts, and indicated the employment of cocaine with great advantage in the obstinate cough of tuberculosis, or other similar affections.

Similar experiments have proved the anæsthetic action of cocaine on the mucosa of the urethra and the rectum.

[TO BE CONTINUED.]

ARTICLE LXXX.

Editorial Department.

FRANK M. RUMBOLD, M. D., Editor and Proprietor.
COLLABORATORS:
H. CHRISTOPHER, A. M., M. D., Medical Subjects.
FRANK L. JAMES, Ph. D., M. D., Translations and Microscopy.
A. H. OHMANN-DUMESNIL, A. M., M. D., Translations and Dermatology and Syphilis.
J. C. MULHALL, M. D. Diseases of the Respiratory Organs.

Original articles, correspondence, short reports of cases from private practice, solicited from all quarters.

Eastern Agents, J. H. Vail & Co., 21 Astor Place and 142 Eighth St., New York.

European Agents, Trübner & Co., 57 & 59 Ludgate Hill, London.

Terms $3.00 per annum, in advance.

THE SCARSITY OF ENGLISH MEDICAL DEGREES.

The *British Medical Journal* some time ago contained the report of a meeting of the Metropolitan Counties Branch of the British Medical Association, called for the purpose of considering the question as to what steps should be taken to facilitate the obtaining of degrees in medicine by metropolitan students. The long and elaborate report made by Dr. Gilbert Smith contained a number of facts which are interesting to all those contemplat- a tour through Great Britain, as indicative of the relative stringency, in examination, of the different universities.

From the report it appears that in England thirty-two *per cent.* of the medical practitioners have medical degrees; in Scotland seventy *per cent.* and in Ireland 38 *per cent.*; whilst the army and navy has forty-two and two-fifths *per cent.* Now taking the degree men of England it is seen that 63 *per cent.* possess Scotch degrees; 97 *per cent.* Irish; 69 *per cent.* Foreign, and 20.6 *per cent.* English. Leaving out the metropolis we find that of the practitioners of England possessing degrees but 16 *per cent.*

have English, 68 *per cent.* Scotch, the Irish and Foreign being about equal. In Scotland, on the other hand, 98.7 *per cent.* have Scotch degrees, not one-half *per cent.* English and about one-fifth *per cent.* Irish degrees. In Ireland 72 *per cent.* of the degrees are Irish and 26 *per cent.* Scotch.

Taking the number of practitioners having degrees, those in Scotland number 1557 and all but 20 have Scotch degrees. In England 4143 out of 5219 possess Scotch degrees. In the army and navy 53 *per cent.* of those possessing degrees have obtained them at Scotch universities, 41 *per cent.* from Irish and but 4 *per cent.* from English, the remainder being foreign.

We find still further that for the five years ending with 1883, London University graduated an average of 39 per annum, whereas the Scotch universities granted degrees to ten times that number. Several reasons were given for this great discrepancy. The preliminary examinations, in the first place, are too strict and the requirements too high. Many study in London and finally repair to Edinburgh or some other Scotch University and there take their degrees. It is to the interest of London and English medical men that there should be more applicants for English degrees and although a high standard of requirements makes a degree more valuable, such a thing is possible as entirely diverting applicants to other quarters.

The matter has not been definitely settled yet; still there is no doubt but that some steps will be taken to smoothen somewhat the heretofore rugged and thorny path which has been the road to London medical degrees. Many able and worthy medical men in London would long since have applied for degrees had it not been asked of them to pass a number of years in the obtaining of them, by strictly complying with the laws of the university requiring a certain amount of time to elapse between each examination. And it has happened that the applicants were for more able and well-known men than their examiners.

A. H. O-D.

CIRCUMCISION.

In a recent number of the *Medizinskaie Obozrényé*, Dr. Portougaloff, of Moscow, has an article on circumcision among the Israelites, in which he takes strong grounds against the rite, on account of the hæmorrhage which the operation, as performed by the priesthood, provokes and the consequent injury to the health and vitality of feeble infants. In discussing the ceremony and the possible causes which gave rise to it, Dr. Portougaloff takes up the very prevalent idea that it was originally a wise sanitary measure, and that those upon whom it has been performed are less liable to venereal disease than men left in the state of nature as far as the foreskin is concerned. "If fewer Jews present themselves to us for treatment in this line of maladies" says he "it is simply because there are fewer Jews than Gentiles; the men are more continent and early marriages are the rule"—a conclusion with which most observant practitioners will, in the main, agree. He concludes, therefore, that circumcision as a general operation, applied to all infants, is a deleterious and useless practice, and that as such it should be discontinued.

The maintainance of this barbarous rite by a race living in enlightened communities and in daily contact with civilization, is a wonderful example of the persistance of primative customs when identified with religious beliefs. Among the ethnical ceremonies and tenets of Judaism there is not one, which has not been adopted or merged into christianity, concerning which there exists in the minds of christians in general so much superstitious respect as there is in regard to circumcision. The opinion alluded to by Dr. Portougaloff as prevalent in Russia, that the operation was a wise sanitary measure miraculously revealed to a chosen people, and that its practice confers upon the descendants of this race peculiar immunity from the usual effects of filthy sexual debauchery, is all but universal among the masses in this country and England, and prevails to a greater or less

extent throughout the balance of christendom. Nor is it confined to the laity; it obtains with equal or even greater force among a class of men whose education should lift them above the influence of tradition or superstition in the study of any question of fact, whether pertaining to hygiene or morals, religion or pure science. The following facts concerning the practice, well known to students of ethnology and history, instantly rob it of all claims to divine origin and divest it of the religious elements which have hitherto surrounded it and given it an unmerited importance.

I. The rite is not peculiar to the Jews, but is practiced at the present time by the Mohammedans; the Malayo-Polynesians in Tahiti, Tonga and Madagascar; the Negrito races of New Caledonia, Tasmania and Fejee; the negroes of Africa, not only of the coasts but of the interior, from Northern Abyssinia to Southern Caffreland; in America by certain Indian tribes of Mexico, Yucatan and San Salvader; and finally in Australia. It was practiced by the Egyptians from the remotest antiquity, and probably by all Arabian peoples. (See Herbert Spencer's Evolution of Ceremonial Government, Article on Mutilations).

II. In its origin and inception among the Egyptian and Semitic races generally, it was not a religious rite but a military mutilation, the foreskin serving as a trophy of war, exactly of the same nature as the scalps taken by American Indians. This is its character to-day in Abyssinia, as stated by Bruce and other African travelers. Bruce gives a graphic description of the cermony of presentation of bloody foreskins made to the war chief at the close of each day's fighting by every Abyssinian soldier who had slain an enemy. These foreskins were afterwards collectively given by the chiefs to the king, being deposited in a heap in front of his palace door or gate—an exact reproduction, after the lapse of thousands of years, of similar scenes in ancient Egypt, as depicted in mural paintings of the earlier dynasties. That the same custom was in vogue among the Jews and had the same significance in the days of David, is proven by

Saul's bargain with David as to the dowry for Michal (a hundred Philistine foreskins was the price asked for Michal, but David, with the usual extravagance of a lover, sent Saul two hundred of those pleasant trophies).

III. From the use of the operation as a method of securing trophies of dead enemies to one for marking living foes, captured in battle and held as slaves, the transition is an easy one. Hence, circumcision soon came to indicate subjection, and as remarked by Herbert Spencer (*loc. cit.*) "that it was so regarded among the Hebrews all the evidence proves." This was its meaning in the contract entered into by Abraham with Jehovah the Lord was to be *a* god to him, in consideration of which Abraham and his descendants and their slaves (*not* of Hebrew blood) were to be circumcised (to show their subjection to God).

IV. None of the races now practicing circumcision are noted for cleanliness or for any immunity from venereal diseases. On the contrary, so far as the races of Oceanica, Polynesia, etc., are concerned, syphilis has played and is playing the principal role in the process of extinction which they are rapidly undergoing. Among the Mohammedans filth is the highest token of sanctity.

Having disposed of the question of divine origin, we may look at circumcision in the light of any other surgical operation, which may be useful and advisable or the contrary, according to circumstances. F. L. J.

NAPHTHALIN IN AFFECTIONS OF THE ALIMENTARY ORGANS.

It will be remembered by our readers that, at the International Congress of 1884, Prof. Rossbach, of Jena, read a communication upon the value of naphthalin in diarrhœas and other affections of the digestive tubes, allusions to which have been made from time to time in our pages. The conclusions of Professor Rossbach have, some of then, been denied by other observers, German and French, but in a recent number of the *Berliner Klinische Wochenschrift* the Professor reiterates his statements

and maintains his former conclusions with regard to the value of the remedy. The article is a comparatively long one and I can here give but a condensation of it.

Naphthalin, he avers, is the best of all disinfectant substances which he has ever employed in this connection, inasmuch as it may be given for many weeks in daily doses of 5 grams (=77½ grains) without producing any evil effects or inconvenience. A very minute quantity is absorbed, the balance mingling with the detritus of alimentary matters and is carried off with them. All other disinfectants are absorbed to a greater or less degree in the stomach, and a very small percentage, therefore, ever reaches the colon, there to play their role.

Calomel, for instance, which *per se* is very insoluble, on coming into contact with the gastric acids is transformed, little by little, into the bichloride. Up to a certain point it exercises on the intestines an action analogous to naphthalin, but it can be employed for only a very short time in this direction without producing a grave and characteristic intoxication.

For a year past, the author has used nothing but naphthalin in all affections of the primary and secondary *viæ* and is more than ever convinced of its exceeding value. The drug as sold, commercially, is impure and must be purified before using. This may easily be done by the physician himself, if he cannot procure the pure article, by repeatedly washing the commercial drug in alcohol. The dose for an adult varies from 10 to 50 centigrams (from 1½ to 7½ grains) and may be repeated until the amount given in 24 hours reaches 5 grams (=77½ grains). The best formula for its exhibition is as follows:

℞ Naphthalin, c. p.,
Sugar, of each, 75 grains.
Essence of bergamot ½ minim.

Rub well together and divide into 20 capsules. Five, ten, fifteen or even twenty such doses may be given in a day.

For administration by the rectum Dr. G. von Liebig suggests a mixture of 1 part of naphthalin to 7 parts of an infusion of

chamomile. The author prefers an infusion of marsh mallows and suggests the following process for making the lavement.

Into one vessel put the requisite quantity of naphthalin along with 50 to 100 parts of distilled water. Apply heat until the naphthalin melts, when the mixture must be agitated until the drug is broken into innumerable minute particles and evenly distributed throughout the fluid. It should now be poured into the marsh-mallow water, which must be boiling at the moment of the addition. The whole is now allowed to cool down to 37° centigrade (98½° F=the temperature of the body).

Naphthalin does not modify or interfere in any manner with the appetite or digestion. In a case of intestinal tuberculosis the author administered it for many weeks without causing nausea, and only twice did the patient complain of loss of appetite.

As to the charge made by some parties recently that the drug causes albuminuria, the author states that while a few patients have complained of lumbar pains, not one has had albuminuria.

The following are the diseases and conditions in which the author has found naphthalin to be unequalled as a remedy:

I. *Chronic catarrhal enteritis*: very useful when the condition does not depend upon carcinomatous alteration of some portion of the intestine. Nothnagel maintains that when diarrhœic stools have persisted for several years, intestinal ulceration will always be found. The author had employed naphthaline in many such cases which had resisted every other form of treatment and in some of them the recovery was so rapid and striking that the patients were in a normal condition within 2 weeks from the commencement of treatment.

II. *Acute catarrhal diarrhœas:* In these naphthalin gives equally good and striking results, but in certain cases opium remains the remedy *par excellence.*

III. *Cholera infantum.* The remedy had been tried in a very large number of cases, not only by the author but by Drs. Goetze and Schutz, and the results were always satisfactory.

IV. *Typhoid fever.* All the patients afflicted with this disease

which came to M. Rossbach's clinic were treated with naphthalin. At first the doses given were small, and there was no positive result therefrom. On increasing the dosage, however, he states that a portion of the cases were aborted, the malady terminating in 5 or 6 days, the temperature falling from 103°, 104° F. to the normal almost immediately, but the tumefaction of the spleen continued a few days longer. In one case the temperature was kept at a normal point for 14 days with daily doses of naphthalin, but on suspending the remedy the heat returned. In another instance where treatment had been neglected up to the 12th day, and the case was very grave, the temperature which was 106 °F, (41°C.) did not yield to quinine or to the cold pack, but did so promptly to naphthalin. In such cases quinine and naphthalin act well in conjunction, the former being absorbed to a great extent in the stomach and the latter passing on through the entire canal performing its antiseptic functions as it goes.

V. *Tuberculous ulcerations.* Under these circumstances it is difficult to say what the exact influence of the medicament is. Ulcerations of this description are epiphenomena, and M. Rossbach states that he has seen nothing to lead him to believe that naphthalin has any direct influence upon the tuberculosis itself. In certain cases, however, he noted a marked diminution of the enteric pains, colics, diarrhœas, and flatulence, and sometimes too, of local pains caused by pressure and due to a fold of the peritoneum around some intestinal ulcer. It will be remembered that autopsies frequently reveal tubercles which during life gave no sign by which their presence might have been suspected.

F. L. J.

ANKYLOSTOMA DUODENALIS, a helminth which gives rise to the disease variously known as Egyptian cholorosis, anæmia intertropicalis, etc., and whose existence has been proven among the miners of St. Etienne, in France, and of Chemnitz and Cremnitz in Hungary, and among the navvies engaged in tunnelling at St. Gothard, Mount Cenis and elsewhere in Italy, has recently

been found to infect the same class of men (miners and others working underground) in the basin of the Liége, in Belgium. At a recent sèance of the Academie Royale de Belge, M. Masius exhibited specimens of the parasite and stated that it gave rise to a very grave and dangerous form of anæmia. He had relieved several cases by the use of *filix mas*, as for tapeworm.

A TEST FOR PLEURITIC DEFORMITIES.—All of the methods hitherto suggested for the detection and measurement of deformities caused by pleurisy have given untrustworthy results, as pointed out by M. Pitres in a recent article on the subject in the *Gazette heb. des Sc. Med. de Bordeaux*—a fact which goes to prove that the corporeal changes caused by unilateral pleurisy are much more complicated, than was formerly supposed. The truth is that the two halves of the skeleton of the chest are so intimately associated that any corporal deformation on one side is counter-balanced by similar or compensatory deformations on the other. The arching of the breast (*voussure*) is the most important of these complex deformities, and is due to an unilateral distention of the thorax, which determines at one and the same time a costo-vertebral enlargement on the affected side, a retreat or shrinkage of the costo-vertebral angle of the healthy side and a rotary movement *en masse* of the mobile parts of the thorax around a rigid axis (represented by the vertebral column). It is very easy to make this displacement evident by a very simple manodephteuvre devised by M. Pitres and called by him the 'process of the cord' (*procédé du cordeau*). It consists in stretching a string or cord from the exact centre of the sternal fourchette to the centre of the symphisis pubis. If the party under examination is healthy (so far as pleuritic effects are concerned) and not otherwise deformed, the cord will follow the exact centre of the sternum. With pleuritis, on the contrary, the cord will pass one, two or even three centimeters to one side of the median sternal line. Many tests have demonstrated the exactness of this process.

TRANSLATIONS.

SEMEIOLOGIC VALUE OF NEPHROZYMASE IN RENAL AFFECTIONS.—As long ago as 1865 M. Bechamp demonstrated, very neatly, that normal urine contained a substance of albuminoid nature possessing the general characteristics of the soluble, ferments, and to which he gave the name of nephrozymase. This substance has the property of fluidifying and saccharifying starch, but is without effect on cane sugar. This hitherto unknown substance, which had always been reckoned with the extractive matters of urine, appears to be constant in its proportions, and is of relative importance, since it exists to the extent of 60 centigrams in the healthy adult male, and 33 centigrams in the adult female. Various reasons led M. Bechamp to place the seat of its manufacture or development in the kidney itself, and we (M. Bechamp and myself) have experimentally demonstrated that the relative percentage of nephrozymase is greater before the urine reaches the bladder than in the bladder itself, or rather after the urine has remained for some time in that organ.

The following is our method of separating the ferment from the urine. The urine is first filtered and then is carefully treated with 3 volumes of 90 *per cent* alcohol. The precipitate settles little by little and precipitation is complete at the end of 24 hours. The greater part of the supernatant liquor may now be decanted, the precipitate collected on a filter and repeatedly washed with alcohol of 75° until all matters soluble in this menstruum are washed out. The residue is nephrozymase. Dissolved in distilled water it will liquefy and saccharify starch.

In order to effect the perfect separation of the total amount contained in any specimen of urine, it is necessary that the foregoing manipulations be repeated several times. To facilitate the elimination of mineral substances it is recommended that a minute proportion of sodic acetate be added to the urine at the commencement of operations.

This substance (nephrozymase) has a significance and importance which is at once physiological and pathological.

The physiological interest lies in the fact that its existence demonstrates that the kidney, hitherto supposed to be merely a sort of filter, furnishes a true secretive product; that is to say an entirely new organic compound which previous to its manufacture by the kidney did not exist anywhere in the system, and

whose presence in the urine indicates a true glandular function in that organ. This is a discovery which goes to show that there is no such radical differentiation between the secretive and excretive organs as we were formerly led to make and maintain.

From a clinical point of view all that has been learned of it hitherto, although the extent of this knowledge is very limited, tends to show us that nephrozymase has a real semeiological importance, particularly in so far as concerns the anatomic conditions of the kidneys in their primary and secondary affections. The attention of practitioners should be especially called to this point and they should be urged to examine carefully into the pathological conditions which in well determined cases, cause an augmentation or diminution of the nephrozymase.

Zymasuria, or an augmentation of the normal quantity of nephrozymase has been noticed up to the present time by us in several cases of diabetes, in one case of renal congestion which ensued upon the retrocession of a cutanous affection, and in a case of heart disease.

The absence of the element has been noted in several diseases which differed widely from each other in character, and it seems impossible to attach any special significance to the fact.

From all that we have said we may finally conclude:

I. That zymasuria is generally the introductory to a state of renal congestion, primary or secondary, but unattended by any notable alteration of the glandular epithelium.

II. That its total disappearance from the urine indicates a profound disorganization of the secretory epithelium and is peculiarly indicative of an advanced stage of Bright's disease.

Baltus, *Jour. des Sc. Med. de Lille.*

F. L. J.

TETANUS.

M. Verneuil reported to the Academie de Médécine recently a case of traumatic tetanus successfully treated by the "rational method" of Prof. Jullien, a treatment which consists in enveloping the patient in cotton batting to the depth of three or four inches all over the body, placing him in a room from which all noise, light etc, is shut out, and keeping him in a profound sleep, hypnotized by high doses of chloral hydrate, for a period of time varying from 3 weeks to a month. The suggestions of Prof.

Jullien were followed out to the letter and the patient recovered. The remedy is almost as bad as the disease.

THE TREATMENT OF KELOID.

The Société de Chirurgerie of Paris, at its séance of May 13th, discussed *in extenso* the question of the value and propriety of operative interferance in keloid, the debate being participated in by M. M. Monod, Le Dentu, Reclus, Le Fort, Berger, Verneuil, Championière and Tillaux—names whose eminence in the annals of cotemporaneous French surgery give great weight to the views expressed. M. Monod briefly announced his opinion that the tumor should be removed by the knife as early as possible. The case should be kept under strict surveillance and if there was a return it should be treated by medicinal means. These views were opposed by all of his distinguished colleagues, with the exception of M. Championière. M. Le Dentu opposed ablation as a general thing, since the tumor never fails to return. Where the tumor is ulcerating or interferes with the functions of a member, it might be removed, but we must expect a recurrence. M. Reclus was of the same opinion. He opposed ablation on general principles, but under the circumstances suggested by M. Le Dentu might consent to operation, not, however, until all other methods had been exhausted. The treatment which had been successful in his hands was continued pressure, with the compound mercurial plaster of Vigo applied locally, and cod liver oil and iodide of potassium internally. M. Verneuil said "treat keloid in any way you please except by extirpation." Keloid is either idiopathic or symptomatic. He (Verneuil) had seen a syphilitic patient whose body was actually covered by keloids. A course of iodide of potassium eventually worked a cure, every tumor disappearing. Idiopathic keloid may be cured by compression. He had cured a case with the elastic bandage. "In fact" said M. Verneuil in closing, "anything in keloid but exstirpation." M. Championière, who agreed with M. Monod, said that keloid does not return as rapidly nor as certainly as is generally supposed. "Es-

pecially is this true when we have been able to secure an exact and immediate reunion of the parts from which ablation has been performed." In conclusion M. Berger said, in response to M. Championière, "that he had operated on keloid where he had obtained the most exact and perfect reunion, and yet the tumor came back. And in such cases where it did return its growth at the expiration of some six months was excessively rapid."

ARTICLE LXXXI.

Department of Microscopy.

CONDUCTED BY

FRANK L. JAMES, Ph. D., M. D., President St. Louis Society of Microscopists, of St. Louis.

MICROBE OF ERYSIPELAS.—In discussing the specific microbe of erysipelas at a recent séance of the Academie de Médécine, M. Cornil stated that while there was but little apparent difference, so far as the microscope could discern, between the streptococcus of erysipelas and that of areolar inflammation (phlegmon), the great fact remained that an inoculation of the streptococcus of erysipelas always produces erysipelas. In short, though there may still exist room to discuss the identity or generic difference between the microbe of erysipelas and that found in certain phlegmonous conditions, there could be no question or room for doubt that erysipelas is always caused by a streptococcus whose presence in the connective tissues, in the lymphatic plasmas and blood, is always demonstrable. M. Cornil explains the variable degrees of intensity of erysipelas to the casual presence or absence of bacteria differing from those pathogenic of erysipelas. In this category he places puerperal erysipelas and those eruptions which have been observed to follow or accompany certain traumatic lesions.

INJECTION OF THE VASCULAR SYSTEM OF THE LIVER.—The injection of the vascular system of the liver is an operation

comparatively easy of accomplishment, because the various vessels of this organ are in direct communication with each other, and are valveless; so that whether we choose the vena porta, the hepatic artery, or one of the sub-hepatic veins, we have no difficulty in forcing the injecting fluid into and exactly filling the gland. Of course there are degrees of facility in the accomplishment of the operation, according as we make choice of a large or small animal, and also according to the channel of which we make selection. Thus, with the rat, for instance, injection by the hepatic artery is not easy, while it offers no especial difficulties with the liver of a dog or hog. *Per contra.* if we choose the sub-hepatic vein or the vena porta it is very easy of accomplishment with either the rat or rabbit.

When you inject through the vena porta the following are the manipulations which always succeed in my hands. Ligate the vena cava inferior below the liver and throw a light tentative ligature around it just below the diaphragm. This done, insert the canula into the vena porta on the side of the liver and force in the coloring matter, using the ordinary precautions. As soon as the injecting fluid has driven out the blood that was contained in the hepatic vessels, place a firm ligature around the vena cava at the point below the diaphragm where you had placed the tentative ligature, and continue the injections with the necessary precautions as to force, etc.

By way of the subhepatic veins the operation is even more easy. Ligate the vena cava inferior below the diaphragm and tentatively, as before, on the vena porta, and force in your coloring matter through the vena cava inferior just below the renal.

As an injection you may use either the gelatin or prussian blue. The latter should contain 1 part of gelatin to every 25 parts of soluble concentrated Prussian blue. As to carmine, I want to give you the formula for a

New Carmine Injecting Fluid,

which I have recently adopted, and which I think is especialy adapted to the injection of the liver. The preparation of carmine injecting mass as directed in works on technology is difficult—even when modified according to the method suggested in my *Traité Technique*, and I have had many disappointments in using it. The new process is more simple than the old one and far superior. It is necessary first to prepare a solution of gelatin as concentrated as possible, and to this end you must soak your gelatin in cold

water until it has swollen and imbibed all the moisture possible. It should then be strained and freed from all superfluous water. It may now be placed in a waterbath and melted and a carmine solution, made as follows, added to the resultant fluid. The carmine should be of the best quality "No 40" and should be mixed with the least possible amount of distilled water—just enough to wet it thoroughly. The resultant mass should be left to stand several hours, until the water has penetrated every granule, and when you are satisfied that this is the case you may add your ammonia, drop by drop, stirring and watching. As soon as the carmine is dissolved cease adding ammonia. You may make up quite a quantity of this solution at once, preserving it to use as needed. In adding the carmine solution to the gelatin I observe no particular proportions but add the coloring matter until I obtain the desired tint. But a very small quantity is necessary, however. When this is done I proceed to neutralize the gelatin solution by adding, drop by drop, acetic acid previously cut with 3 volumes of distilled water. The point of neutralization may be known by the tint assumed—a violaceous one giving away gradually to a rich wine color. The mass may now be filtered through flannel. It should be injected at a temperature of 36° C (98° F.) and at this point there is no diffusion, on account of its richness in gelatin. I made, not long ago, eight consecutive injections with this mass without an accident. There was no diffusion and no granulated precipitation.

The after treatment of specimens injected with this carminated gelatin is very simple. As soon as the specimen has become cold and the gelatin has thus solified, it should be cut up into little pieces of a half inch cube, and placed in ordinary alcohol for 24 hours, when it will be sufficiently hard to cut. In cutting sections they should be made parallel to the surface of the liver, as in this way the disposition of the structure is admirably shown.

F. L. J.

Article LXXXII.

Department of the Respiratory Organs.

CONDUCTED BY

J. C. Mulhall, M. D., Physician to the Throat and Chest Department, St. Louis Medical College Dispensary.

Tonsils and Tuberculosis. *Medical and Surgical Reporter.*—Dr. Strassman remarks that the symptoms of scrofula often disappear, and are succeeded by robust health, after excision of tonsils in children, and that inasmuch as phthisis in the adult very often occurs in those in whom there existed in childhood enlarged tonsils or chronic cervicle adenitis, that excision of these glands is a wise prophylactic against phthisis. His explanation is that such tonsils are stations well adapted for the reception and development of the bacillus tuberculosis.

I hardly credit the latter, especially as reliable pathologists have sought in vain for tubercles in the tonsils. I should rather explain that those who are allowed to grow up with enlarged tonsils, have from this cause defectice chest development, that in them most of the breathing is done by the mouth at night and that in these two conditions the danger lies.

Sarcoma of the Larynx. *Jour. des Hopitaux.*—A report of the first case of total extirpation of the larynx done in France. The operator, Dr. Leon Labbé and the date Jan. 20th, 1885. French surgeons are conservative, the Germans have made this operation several score times.

A Heart Weighing 48 Ounces. *Maryland Med. Jour.*—Dr. Dulles at the autopsy of a man, aged 18, found this cor bovinum, enormously dilated and hypertrophied. The subject had suffered from rheumatism, chronic and acute.

Hemoptysis. *Medical Record.*—Dr. Curtis has been successful 15 times in immediately controlling it by a novel and original proceedure. He adjusted pads and straps over the femoral and

brachial viens, so far as to stop the venous current but not the artenal, of one side. On the supervention of cyanosis of the limbs the strapping was transferred to the other side. The straps were loosened a hole at a time, the holes being a quarter inch apart. This proceeding seems quite rational to me in venous hemoptysis.

Dr. Cayleg of London (*Medical Press and Circular*) in order to control an hemoptysis which had not yielded to ordinary methods induced pneumothorax, by intercostal incision. The object of course was to induce compression of the lung, and, thereby, the bleeding vessel.

PHYSICAL EXAMINATION OF WEAK CHESTS. *Boston Medical and Surgical Journal.*—At a meeting of the N. Y. Academy of Medicine, Dr. E. Darwin Hudson Jr. read a paper on this subject. Amongst other things he called attention to two areas, which were almost wholly passed over by examiners—namely, the high axillary region and the inter scapular spaces, and which often afforded most important information in suspected phthisis. He spoke also of the great value of simple but accurate inspection. (How many think of noting changes in the individual intercostal spaces?) He thought the little conoidal elevations which often appear on the chest wall after the percussion tap, strongly suggestive of phthisis before much wasting. He regards this as a true cutaneous reflex. Professor Loomis in the ensuing discussion remarked that the more he studied thoracic disease the more convinced was he of the value of inspection. In earlier years he had been accustomed to looking principally at the infraclavicular region, but he was now assured that much more information in suspected phthisis was obtained from the inter-scapular spaces. He regarded the axillary spaces also as of great importance, and the whispered voice as of more value than the spoken voice.

I venture to assert that only a minority of physicians ever diagnose pulmonory phthisis in its early stages, when there exists a possibility of curving it, and that the majority rely on symptoms and coarse physical signs, by which time the disease has made incurable inroads. The fault is in our medical colleges. To be well trained in physical diagnosis of chest diseases, one must have examined many, very many chests under competent instruction. How many students graduate who can truthfully

say that they have carefully examined 100 chests? Not many; and yet he is a bright fellow, whom such experience has made a thoroughly competant auscultator. On the other hand, there are many who are so confident of their ability to diagnose, that they do not require to see the whole naked chest, as the distinguished Loomis does, but listen through coat, vest and shirts. So much care is required in the physical investigation of commencing phthisis that a conscientious physician, and one who has confidence in his ears, will take advantage of every possible method which our science affords, and let not 2 inches of the chest wall escape inspection, percussion and auscultation.

SEROUS PERICHONDRITIS OF NASAL SEPTUM. *Deutsct. Med. Wochen.*—Prof. Jurasz found each nostril after an attack of facial erysipelas, filled with a globular intensely red tumor, fluctuating and with their basis on the septum. He diagnosed purulent perichondritis of the septum, but was surprised to find only clear serum to follow aspiration. A probe developed the fact that the fluid had formed between the cartilage and perichondrum which were entirely separated. Cure followed free drainage. Only one other such case has been recorded, that by Velpeau.

TUBERCLE OF THE ŒSOPHAGUS. *Riv. Clin. di Bologna.*—Dr. Mazzati states that the disease is exhibited in two forms. In one form pulmonary cavities or lymphatic glands open into the œsophagus. There exist inflammation or tubercles due to local infection from morbid matter discharged into the gullet. In the other form the tube is primarly affected with tubercular ulcers—usually but one or two, seldom more than five, and nearly always in the lower third. They are oval, small and superficial with their long axis corresponding to the long axis of the œsophagus. The process begins in the subepithelial connective tissue. Tubercle of the œsophagus is always associated with tubercle of other organs.

ARTICLE LXXXIII.

Department of Dermatology and Syphilis.

CONDUCTED BY

A. H. OHMANN-DUMESNIL, A.M., M.D., Professor of Dermatology and Syphilis, St. Louis College of Physicians and Surgeons, of St. Louis.

TREATMENT OF ECZEMA.—Henry J. Reynolds, M. D., Prof. of Dermatology in the College of Physicians and Surgeons, of Chicago, read a paper on this subject at the Illinois State Medical Society.

Therapeutically speaking he regards the disease as always either acute, sub-acute, or chronic, regardless of its clinical name or location, and arranges the treatment accordingly. In the acute, as in all other acute inflammations, the great principle necessarily involved, is *rest*, which implies not only quietude of the member or part, but *rest from all irritating influences*. Soothing and protecting measures, therefore, are indicated in this stage, among which may be mentioned carron oil, poultices, etc. In the sub-acute, as in all other stages and forms, scratching must be strictly prohibited, as it is the most fruitful of all sources of aggravation.

He uses in this and the chronic condition (either of which may at any time develop acute symptoms and require the treatment changed accordingly) pure, impalpably fine boracic acid as a dusting powder; having first gotten rid of crusts and scales by soaking with oil and washing with soap and warm water. In the chronic, however, he uses greater stimulating measures, in the way of green soap frequently rubbed in during washing. He thinks bandaging and strapping advisable whenever practicable, prefers the cotton roller to the rubber where there is much exudation or maceration of the skin. He has but little faith in the popular skin remedy, arsenic, in this or any other disease; all he knows *positively* of the remedy is that you *can* do harm with it. Chrysarobin, internally, as recommended by Stocquart, he has tried without any benefit.

THE CONTAGIOUS SKIN DISEASES.—Dr. Arthur Van Harlingen very pertinently remarks, in the *Polyclinic*, that one of the first questions which occurs in the study of skin diseases and usually the first one which the patient puts to the physician is, "is this disease contagious?" It is a question that ought to be answered at once and as the number of the contagious skin troubles is small, they ought to be thoroughly studied in order that the patient may be given the proper answer to his question unhesitatingly. The dermatic affections which are contagious, are all of the syphiladermata, although to a greater or lesser degree. Then we have scabies, the various forms of pediculosis, ringworms, parasitic sycosis, favus, tinea versicolor, impetigo contagiosa, molluscum epitheliale (m. contagiosum) and some of the rarer troubles such as farcy. If, as is asserted by a number of good authorities, lupus, lepra and other affections depend upon specific bacilli they are, to a greater or lesser degree, contagious also and might be included in such a list. The supposition of such a quality at all events would do no more than diminish the danger of such an accident occurring and could do no possible harm.

ALBUMINURIA IN SKIN DISEASES.—M. Augagneur in a very interesting article contributed to the *Lyon Médical* concludes from a number of cases observed by him that often acute nephritis arises in the course of lymphangitis and ecthyma and that these lesions of the kidneys are directly dependant upon the skin lesion. The pathogeny is explained by the absorption of micro-organisms by the wounds and their elimination by the kidneys (infectious nephritis of Bouchard). Generally these renal troubles disappear as the dermatic trouble improves; they may prove fatal, however, in the manner observed in all renal troubles. Antisepsis in suppurating skin lesions is the best method of preventing all complications having their seat in the kidneys.

RHINOSCLEROMA.—M. Cornil spoke of this trouble before the Académie de Médicine (*Progrès Médical*). He stated that this disease consists in a thickening seated in the nasal septum, the nares, the nasal fossa and extending to the upper lip, to the pharynx and larynx producing a narrowing of the last. The thickening assumes a flattened form or like tumors and encloses micro-organisms upon whose presence M. Cornil insists. They are short rods 2½ to 3 micromillimetres long and $\frac{2}{3}$ to ½ wide,

enclosing granules. When stained the nuclei have an ovoid shape whose perisphere is formed by a well-defined capsule. In the centre of this capsule is the bacillus around which there exists a clear *bosse*. In other words these bacilli posses a peculiar form and are stained in a certain manner, besides having a hard capsule.

VACCINATION AFTER EXPOSURE TO SMALL-POX.—We find a paper on "Immunity in Disease" written by Dr. R. G. Eccles, in the *N. Y. Medical Journal*. Among other things the author says that the doctrine of relative immunity, which is now well established and belongs specially to no particular theory, is of the utmost practical importance and should never be lost sight of by any practitioner. It should deter us from vaccinating a person merely because he has been exposed to, or shows symptoms pointing suspiciously toward, small-pox. Already a dose of virus may have been imbibed, and for the physician to add another, then, is criminal. People must protect themselves in advance of exposure. When they have been exposed, it is too late. The following is quoted from Prof. Law; "Reinoculation with fresh virus during the progress of the disease in a patient does not mitigate the illness nor protect against a further attack; but rather insures and hastens a fatal issue." These assertions are rather strong and we are inclined to accept them with a large mental reservation. In the last uumber of the JOURNAL was recorded a case where vaccinia and variola were co-existent and the reporter says that "the disease (small-pox) ran a perfectly normal, but very mild course. * * * Everything at first pointed to a decidedly severe attack, and a very mild one ensued." In a number of cases the same vaccine virus produced nothing but vaccinia. We do not think that it is so criminal after all to vaccinate after exposure to small-pox.

LUPUS VULGARIS AND SCARIFICATION.—Dr. B. Merrill Rickets records, in the Columbus *Medical Journal*, the treatment of a case of lupus vulgaris of the face by scarifications. He has had the case under treatment about eight months and believes that in about eight more it will be cured. The patient, a female aged 28, has had the trouble for ten years, the supra orbital region, the whole right cheek, upper lip, nose and a greater portion of the left cheek being involved. He scarifies every 3rd or 4th day

and goes down to the cellular tissue, using either Vidal's scarifier alone or in connection with the dental hook, as suggested by Dr. G. H. Fox and noticed in the JOURNAL some time ago. The linear incisions are made about ½ of an inch apart and parallel. The use of lactic acid in these conditions does not seem to have been made, as yet, in this country.

RESISTANCE OF THE SYPHILITIC VIRUS.—H. H. Leloir, a pupil of Fournier and many years at the Hôpital St. Louis, has been giving a series of lectures on syphilis which we find reproduced in *le Progrès Médical*. At the close of his second lecture he states that a study of the syphilitic virus shows us what is of the highest practical importance with respect to contagion, especially to mediate contagion. It shows us that this virus offers a great resistance to the action of diverse physiological and pathological fluids; saliva, milk, urine, mucus, serum, lymph, pus, chancroidal pus, etc., and even gastric juice as shown by the experiments of de Padova. On the other hand, this virus is gifted with a great vitality as shown by the number of mediate contagions through objects soiled a long time back. These, he insists are facts which it will do all good to remember.

PIGMENTARY SYPHILIDE.—Fournier is speaking of this lesion says (*Jour. de Méd et de Chir. Prat*) that it has three fundamental characteristics; 1st, It is seen almost exclusively in women: especially in those who are young, somewhat anemic and with delicate skin. He has seen but ten cases in males and they had fine and delicate skins. 2nd, It has a special location—the neck. It is only in rare exceptions that it is found on the trunk or as far as the axilla. 3rd, It presents a great resistance to the action of anti-syphilitics, and it persists in spite of all efforts. Besides this it constitutes what Fournier describes as the "trade mark" of syphilis. This manifestation is generally recognized in France and is being admitted by writers abroad. Kaposi is yet an unbeliever and with him a number of others.

MERCURY IN SYPHILIS.—Dr. W. W. Lane, surgeon in charge of the Wilmington (N. C.) City Hospital, contributes some notes of cases to the N. C. *Medical Journal*, and amongst other things says that in the cases of syphilis which are in the state of transition from the secondary to the tertiary, mercury is not only our

best method of curing the disease, but also the surest guarantee againt a relapse. Daily experience demonstrates clearly that the iodides may cause the disappearance of tertiary symptoms, but they do not alone cure syphilis. To combat these forms of the disease successfully, we must give a combination of the two remedies. Although this is the idea given now by the most prominent syphilographers, in their works and text-books, we find that but a comparatively small number of physicians seem to pay any attention to them. The principle is a true one and a good one also and one that is sure of being followed by good results.

THE BROMIDES TO PREVENT IODISM.—The *Medical News* publishes the report of a case by Dr. Henry Selden Norris in which he found that iodism was easily produced. As the case was one of bone syphilis and periostitis, he experimented with the iodides for two months giving different salts in different forms and always with the same result. The iodides were dropped and he was kept upon the mercurials which he had been taking from the beginning of treatment. The disease was advancing and it became imparatively necessary to administer iodine. Small doses of iodide of potassium again produced the same unpleasant symptoms, when it struck the doctor that the bromide might antagonize the action on the the vaso-motor system in the upper air passages. The bromide and iodide of potassium were combined in the proportion of one to two and he took it with impunity, excellent results following. After improvement had well begun, the quantity of bromide was slowly diminished, until in two or three weeks the patient was taking it alone, and continued to do so until entirely well. From this case it would appear that not only does the bromide of potassium avert the disagreeable effects of iodism, but it seems to establish a tolerance for the drug. Should this be a constant effect the discovery of this property of the bromides will be invaluable.

ARTICLE LXXXIV.

Proceedings of Medical Societies.

ST. LOUIS MEDICAL SOCIETY.

Taken by the JOURNAL'S Stenographic Reporter.

SATURDAY, May 2nd, 1885.

DR. ATWOOD, President, in the Chair.

Imperforate Anus and Urethra, Hypospadias, Bifid Spine, Deformed Os Ilium.

DR. LUTZ.—I would like to mention a case that came under my observation about two weeks ago. The mother of the child is about 26 years old and has given birth to three children, the subject of the deformity being the third. The former children were perfectly healthy and well developed. She was delivered by a midwife in the evening; when the midwife returned the next day she first became cognizant of the anomaly. The child was delivered at full term and presented an entire absence of the anus. The penis or urethra presented the condition known as hypospadias; the urethra was imperforate. In the Lumbar region there was a bifid spine and the tumor seemed lobulated or divided into two portions, the one to the left being the smaller. There was a deformity of the right hip, the exact nature of which I could not make out at the examination. It was apparent, however, that there was some defect in the os ilium. The child had vomited the entire night after being born; it vomited incessantly. I saw the child at about 11 o'clock the next day. The raphe was continuous from the scrotum to the coccyx. I made the usual incision for imperforate anus and found that it was necessary to extend the depth to all of three-fourths of an inch in order to get at the bowel. The imperforate urethra, however, did not require so extensive an incision. A very slight incision allowed the probe to pass along the urethra into the bladder. Of course, for the bifid spine nothing could be done. The little patient had a passage within seven or eight hours, the characteristic first passage, after making the anus; and passed its urine two hours after having the urethra opened. The little boy lived for a week and died, evidently, of inanition, although he nursed. There seemed to be no disposition to development at all. We were fortunate enough to get a post-mortem, which revealed the fact that the lower portion of the rectum was absent and was represented by two semi-spheres through which I had made the incision; there was no sphincter to the anus at all. The bifid spine,

the tumors seemed lobulated. It did not appear so after incising it; and I found that the cleft in the spinous process was very small, in other words, the size of the tumor was entirely out of proportion to the opening into the spinal canal, I dare say it was not larger than an ordinary ceder pencil. The lower portion of the cord was very much smaller than usual; it was small in proportion to the other part of the spinal cord and seemed very much flattened antero-posteriorly. The deformity in the right hip was represented by an absence of the posterior part of the os ilium; the sacro-iliacsynchondrosis existed, but was very small. The entire upper and posterior portion of the ilium, reaching anteriorly to within an inch and a half of the anterior superior spine, was absent, the acetabulum, however, was perfectly developed. Ordinarily imperforate anus existing with no other deformity is not a very formidable affair, because these little patients do survive the operation; but in this case it seems that there was such an absence of development, perhaps such diminished development, as to be inconsistent with subsequent life. Of course we did nothing at all with the bifid spine. In addition to this, it seemed to me that the little child had been made of two parts, very much after the fashion that we see bodies made of rubber which are composed of two parts put together, and as if in making the image the workman was not so skillful as necessary and did not bring the parts into exact apposition. One side was a little lower down than the other, the left side seemingly being the lower. It was apparent that the left face occupied a lower plane than the right. Taken all in all the child was not made well.

Historical Gynæcology.

DR. JOHNSTON.—I stated the other evening that this would be a sort of historical talk on gynæcology, its successes and its errors. First let us look at what the writers say about the uterus. The weight of the virgin uterus is from one to one and a half ounces; in a subject who has borne children, from one and a half to two ounces; the depth of the cavities, according to Quain, taken from James Henry Bennett, when divided in this manner, are about equal from the cervix to the body, which is about an inch to an inch and a quarter. In the course of my remarks you will see the force of this, taken from my stand-point of view. Now as to the blood corpuscles: Kolliker states that the blood corpuscle is in width 0.00033 (1.300) of a line, in thickness 0.00092 of a line. You will remember that Hippocrates was educated at Alexandria in Egypt, historians say from 470 to 500 B. C. Such a man to be educated at such a time must have been thoroughly inducted into the science of our profession at that day; he must have had first class teachers. It is known that Alexandria then was the great centre of education; students went from all parts of the then civilized world to the City of Alexandria to study law, medicine and theology. It is also stated that Aetius

was educated there about 300 B. C. At a later period we find Hippocrates at the Isle of Cos. In that day students went from all parts of the civilized world to study under Hippocrates; Aetius was also a teacher there, and a school that could attract students from all parts of the then civilized world must have been thoroughly informed in the anatomy of the human system. Asistobl, Erasistratus and Herphilus, who lived about 300 years B. C., made a thorough and complete dissection of the human brain. It has been said that the human frame had never been dissected, but all of us who have read Erasistratus will find that there was a fine knowledge of the human structure at that time. Then there is a space of perhaps 300 years in which we have no well recorded history. We pass now to Rome where Galen taught. He was a thoroughly informed physician, so that up to that time these men must have been well informed, and if a man could dissect a human brain he must have been informed in regard to the generative organs of the female. Galen was teaching 131 A. D. in Rome. It is said that he was educated at Alexandria too. It is proven that anatomy was taught and understood at that time. Paulus Aegineta, Galen, Hippocrates, and all these other writers that I have referred to, were familiar with the use of the speculum, which was then called Bioptra, the bivalve speculum, of this Hippocrates gives a thorough description. We also find that he described the cervix, and by an examination of Aetius you will find the celebrated probe and sponge tent that have been figuring so much of late years are described, and I might say that Tait states in his last work on Gynæcology, that it would have been better for the human family if it had never been invented. These men also used sponge tents; Sulphate of copper, unguents and astringents were all used and understood at that time. Now the query, if these things were understood in 470 B. C. how is it that they were overlooked and lost to the world. It will be remembered that Paulus Aegineta, in 700 A. D., compiled the works of Hippocrates, Aetius and others. When Osmar, the Persian General, overran the civilized world, he destroyed the library of Alexandria, 700,000 vols., thus the world lost a vast amount of medical literature. It is stated that many volumes were carried off by the Arabians and some of the works retained, but I think, gentlemen, that we are indebted to the Roman Catholic clergy for the preservation of many of these books. It will be remembered that when the Mohammedans overran the Christian countries, they destroy the Christian literature and the Arabian physicians preserved many of these works. They were not progressive in matters of gynæcology, that is evident from the manner in which they kept their women and in which they still keep them. In the seventh century these instruments which have been brought into great popularity and use in the last 50 years were understood by our ancient brethren, but for some cause or another we lost sight of them. In the fourteenth century Pope

Honorius IV forbade the clergy from practicing medicine, to his honor be it said. I quote from James Henry Bennett of London: Before that, among the Christians, the practice of medicine was pretty much in the hands of the priesthood. Hendrick Van Roonhuyse, of Amsterdam, in 1663 recommended the operation for vesico-vaginal fistula. In 1780 Voelter, of Wurtemburg, Fatio of Basle, used the silk suture and failed in the operation. In 1812 Naegale, of Heidelberg, called the attention of the profession to this operation of vesico-vaginal fistula. Tobert, of Paris, Murze, of Baun, and Simon, of Darmstadt, succeeded with the silk suture in the operation for vesico-vaginal fistula. Now it is said that Levert, of Mobile, operated in 1829, so says Emmet in his last work, and used the silver wire. Gossette, of London, in 1834, as you will find in volume VI of the London Lancet, gave a description of his operation and the use of the wire suture with which he succeeded. This was a case in which a stone from the bladder passed through into the vagina. In Simpson's work on Diseases of the Female, he gives the precise position in this operation, which our countrymen taught us. Sims pretty much copied from Gossette the very mode in which he operated, and the position of the patient. Metzler, in 1846, used the gilded suture and succeeded. Now, you see that part of gynæcology is a little older than 50 years as has been stated by a west-end resident and member of the Obstetrical Society of St. Louis. It is stated that in 1818 Recamier, of Paris, brought the speculum into active use, and Lisfranc, of Paris, immediately adopted the use of it. It is to be said, that at the International Congress of physicians, 1881, James H. Bennett was the only conservative gynæcologist in that congress. Those who were members of this Society from 1855 to 1860 will remember the practice of Dr. Moses M. Pallen of this city, and that I made an effort to combat the practice of Bennett, as adopted by Pallen. James H. Bennett published his work in 1845 in England and in this country in 1853, and he takes the position that a number of diseases of the female depend upon local irritation and inflammation of the cervix. It will be remembered that James H. Bennett took the position that stenosis of the uterus caused almost all female diseases. James Y. Simpson achieved a great reputation by declaring that the so-called obstructive menorrhœa was the cause of all these troubles. He said that retro-flexion and ante-flexion was attended with obstruction of the menstrual flow, that this produced intense suffering such as we have all witnessed and that the stenosis was the cause of the disease. James Y. Simpson, in his work, called it obstructive dysmenorrhœa. The reason I mentioned the blood corpuscles was to see whether this theory could be correct or not. This idea of Simpson's spread from Edinburgh to London, and Edinburgh to New York, and from New York to this city, all adopted Sir. James Y. Simpson's views. But public opinion is changing now; Dr. Medoros says any moderate anti-

flexion or retro-flexion of the womb will not interfere with the health of the female. Sir. James Y. Simpson operated with and used sponge tents as Hippocrates had done; and it is reported that in treating a lady he told her he could relieve her with the sponge tent, it would take from three to four months, but that with his uterotome he could relieve her very soon. He then operated with the uterotome and in the course of a year after she writes back that she had conceived, therefore James Y. Simpson came to the conclusion that the operation was completely vindicated. Now it is said Sir. James Y. Simpson operated four or five times a day. Here is his language with regard to the uterotome, he says: "But altogether I believe I am entitled to say that there are few operations in surgery so perfectly simple in their performance and so entirely satisfactory in their results as sliting up the cervix uteri in cases of obstructed dysmenorrhœa and sterility." (P. 119 in his work on Female). Just think of it, as great a man as Sir. James Y. Simpson performing an operation of that sort, and we are told that he operated four or five times a day. How many young men of Edinburgh listened to his lectures and have been led astray and how many cervices of females have been slit up, it is enormous to think of ,and now it is known that he followed out his theory without investigating the results. One drop of blood every second would be 60 in a minute, 8 drachms make an ounce and in 24 hours the female would pass three ounces. Then to one drop of this there are an infinitesimal number of blood corpuscles, as you who have used the microscope all know. Barnes, a gynæcologist of London, has the credit of having introduced the lateral operation, America produced the physician who conceived that all the difficulties of the female at the monstrual period were dependent upon mechanical obstruction causing stenosis. We do not know how often Dr. Sims operated, but taking the reports as given by Munde in his work on gynæcology, over three thousand operations, only ten deaths. We wonder that these Gynæcologists had any, but certainly if the cervix was slit up it would heal again and produce a cicatrix, which would leave the cervix in a worse condition than before. It is to Dr. Sims that we are indebted for this operation in North America. Dr. Sims had an inventive genius but we are inclined to give him credit for more than is due him. Dr. Sims should be credited with having popularized this operation as it was due to his indefatigable energy. He operated 29 times on an old negress for vesico-vaginal fistula, and finally succeeded. He also operated successfully with silk sutures but was more successful with the wire sutures. He is also entitled to credit for having improved another instrument, the speculum. And there is another thing that he has done, he injected semen into the womb of a women and, it is said, she conceived, but there is nothing new in that. Now we next come to Dr. Thomas of New York who is now living, as is also Dr. Emmet. Dr. Thomas and Emmet observed

that in giving birth to children, the cervix uteri is more or less torn, and he takes the position that they seldom heal and you will remember that Thomas, Emmet and Sims had been slitting up the cervix before. They take's the position that it seldom heals and that the remedy is to take out a V-shaped section from the cervix, and sew it up. How many they have operated on I do not know, but they go further than that. In relation to cutting out the V section Dr. Emmet says, "I would state that where the woman suffers from neuralgia I consider an operation necessary, notwithstanding the parts may have been completely healed."-p. 464—479. "The rule, however, is that no permanent benefit will result and no woman can remain in continued good health so long as cicatricial tissue exists in the vagina, for both her nervous system and nutrition will suffer from it." pp. 487-489. "The operation is necessary notwithstanding the parts may have been healed completely" and "The thorough removal of the cicatricial tissue from the cervix is absolutely necessary for success." p. 465. Last volume p. 84 he says; when you have a torn surface and a discharge there is a question whether you should pare the edges, and he is inclined first to treat it and get these ragged ulcers to heal, then if there is cicatricial tissue left there it will produce a neuralgia. Now, can any class of physicians in North America or in the world believe such a doctrine, yet that book is handed to all the young men in this country. I can conceive cases where the cervix is torn, where the cervix of the external and internal os is torn up to the body of the womb would act as an irritating cause and bring on an abortion and, in that case, it would justify paring the edges and sewing it up. So it will be seen that Drs. Emmet and Thomas have changed their positions and now they believe that great irritation and great suffering is produced from a little cicatrix and great suffering from a little laceration. I have seen hundreds of women bear children, at least I have seen a good many and I suppose all women who bear children have the parts more or less lacerated; and one would imagine from reading these gentlemen's works that 40 years ago when I began the practice of medicine all the women would be broken down in health because this operation was not performed. I am told that in this city a gentleman, who has recently died, made his reputation by operating at the Female Hospital upon the servant girls who went out there to have their children. It is reported that he operated one hundred times, and I have heard it stated as high as three hundred. As I said before, one would suppose that when I entered the profession the women would all have died for the want of these modern gynæcologists to take a piece out of the cervix. I do not believe that nature has made any more mistakes in the female organization than she has in the male. Matthew Duncan says that there are very few females who give birth to children without the cervix being torn and I think he is about

right. And it is a very easy thing to persuade a woman that her ailments are referable to the uterus or cervix. It is very difficult to get some gentlemen to understand that there is something else to a female besides the cervix, and that a little abrasion of the female genital organs does not necessarily produce all these terrible disorders which have been ascribed to it. If gentlemen would use washes and slight astringents in those cases where it is necessary, all these terrible consequences would be avoided. What I would propose would be to go back to Hippocrates and Aetius, using cleanliness, washes, slight astringents, and if there is some ulceration there and if necessary using caustic, and keep the knife and scissors in your pocket and that infernal instrument that they call the curette with which they cut and scrape the womb in the same way that you would clean out a rotten stable. If a little cicatrix will do all that has been claimed for it by Emmet, if it will produce neuralgia and so on, how much injury do you suppose this scraping of the entire cervix and uterus would produce? Now sir, if there are torn surfaces of the cervix, if it is clear that the womb is injured or that her health is suffering, I would use astringents, stimulants and caustics if it is necessary, but I do not believe in these terrible operations for every little ailment which is found. By adopting the method which I have indicated I think equal benefits will be derived.

SATURDAY, May 9th, 1882.

DR. ATWOOD, President, in the chair.

Aphasia, Apoplexy, Malingering or what?

DR. KING.—I desire to present a rather unique, interesting and remarkable case, reported to me from a neighboring State by a physician of intelligence and ability. The case did not come under my personal observation but it presents some remarkable phenomena, and, as the Doctor has requested this Society shall give some expressions in relation to the points that he desires information upon, I would take it as an especial favor if we could get anything like a pronounced view of the case. Doubtless some of you have already heard of the case as it has been spoken of in the papers, especially in the *Globe-Democrat*.

"Harry Liebfried, German, age 33 years, very muscular, active habits, five feet and five inches high and weighs 185 lbs. He was attacked with apoplexy March 31st, at 10-30 P. M. producing unconsciousness and paralysis of the whole body. The day was quite warm and he had worked hard on his farm, he returned home late in the evening complaining of a "bursting pain in the head." He lay down on a lounge and in about 5 minutes his wife discovered him breathing hard and upon trying to arouse him found him unconscious. He remained in an unconscious state for five days except that his breathing became free and

easy. When I first saw him his pulse was 128, full and firm, face deeply flushed, almost purple. Stertorous respiration and temperature 98.8°. I bleed him profusely and he immediately improved.

On April the 6th he made signs that he wanted to write and on giving him a slate and pencil he gave directions about some business—has had no convulsions, but for five days his bowels have had to be moved by medicated enema and his urine drawn by catheter.

Since that time his bowels and kidneys have been acting normally. Appetite and digestion have been good but slightly interrupted during thunder storms. I discovered on April the 6th that my patient was totally blind, deaf and dumb. He can not distinguish day from night. The general paralysis has nearly disappeared except the left arm—No paralysis of sensory nerves, but complete hyperæsthesia since April the 10th. Since the 8th day of his illness, pulse, respiration and temperature have been about normal, except when disturbed by storms. On April the 19th he experienced a slight attack of paralysis lasting about three hours, during which time his pulse was 128, full and strong, respiration 30, temperature 99°. It was April the 17th that I learned that he could read large print by the sense of touch alone, which continued until Friday night, April the 24th, when he was most violently exercised by the electricity in the air during a thunder storm. It seemed to affect him as forcibly as though he had been connected with a powerful battery. The muscular contractions of the whole body, except the left arm, were so vigorous at every flash of lightening that it required the strength of four strong men to hold him. His sufferings were very painful during the time and ever since he has been quite sore and exhausted. During the excitement occasioned by the storm his pulse ran up to 145, respiration 150 and temperature 98.8°. From the first, extreme tenderness all along the spine with intense soreness of the scap.

Rests well at night. Pupils widely dilated from the first and not affected by light, but during the first ten days the light was very painful. He had an attack similar to this at 7 years of age and again about ten years ago. He recovered from each attack except the muscles of the left side of the face where the muscles at this time are atrophied and paralized. He knows nothing of his early history—has always been temperate, energetic, but excitable. We communicate with him by tracing letters in the palm of his right hand with the point of our index finger and he with us by writing on a large slate. On the 25th, I found a sudden metastasis of sensibility from palm of hand to a spot about six inches in diameter over the hepatic region and that he could readily comprehend all that we wrote him on that spot. During this time that delicate sense of touch had also left his finger tips and he could not discern one letter from another. This condition

lasted for about 27 hours, when suddenly the fine sense of touch in finger tips and the extreme sensibility in palm of hand returned, so that he could readily distinguish the various letters one from another. This state has continued up to the present writing, varying with the electrical disturbances in the atmosphere. He has not had any previous training with the sense of touch. His mind is usually quite clear and has been so since return of consciousness from first attack, March 31st. General sensibility so great that the least jar or noise is painful to him. Dr. Moore, who saw him during the thunder storm, affirms that when he touched Liebfried's left hand while he was under the electrical influence he felt a distinct shock, several others confirm this statement.

DR. BREMER.—It is very difficult to give an opinion on a case without seeing it, but, judging by the statements, made it seems to be a clear case of aphasia. The man could not speak mechanically, he could not see and he could not hear. In all probability there was a very extensive hæmorrhage pressing not only on the centre of articulate language, but also on that of audition and vision, and they are not very far removed one from the other. The hyperæsthesia present in this case is not such a very rare phenomena either, this almost invariably occurs in all kinds of apoplexies. The transfer of it from one place to another is rather peculiar but is not so very remarkable, especially in persons neurotically endowed as this man probably is. Of course I have no personal knowledge of the case, therefore I simply talk hypothetically. What is really remarkable is that the patient should be affected to such an extent by the electrical disturbances in the atmosphere. If there is no source of error I would prefer to look upon it as simple convulsions. The fact that he could distinguish, without training, the letters mentioned by tactile power is more remarkable. There is a celebrated case, an American case, of a girl who could neither see nor hear. I allude to the case of Laura Bridgman who learned to converse, at least she learned to read and get a few abstract ideas of God, immortality and so on, without being capable of communicating with other persons by speech. She went through a very tedious and long course of training and it was only after years that she could read by the touch. With persons that are stricken blind suddenly it is the same way: they go through a very tedious course of apprenticeship before the faculty of reading by touch is acquired and then it is only by means of raised letters. This man could read ordinary print it seems; that cannot be explained on any ground that I know of.

DR. KING.—He reads the large type by the sense of touch and also writing on the slate.

DR. BREMER.—Such a case as the doctor reports must be seen to be believed. I do not doubt the veracity of the gentleman in regard to what he writes, but we are all liable to make mistakes,

and there may be some source of error in this case. It is hardly comprehensible how a man could read by the sense of touch the writing on a slate, I cannot understand that. It is different with large printed letters; that might be read, because there is generally an impression made on the paper.

DR. FRY.—I do not think this case is without parallel in the literature of the subject. Such cases have been reported or, at any rate, there are recorded cases in which most of these symptoms have occurred. I will not say that we have the history of a case presenting all the symptoms which are reported in this one, and the history of this case which we have is not perfect enough to enable one to form a positive opinion about it; but from what data we have I am not disposed to believe that there was any organic lesion or pathological condition of any portion of the cerebro-spinal axis. In the first place, I think it is very doubtful if this man was completely paralyzed, at any rate there is no mention of the battery having been used to determine whether he was or not, which would be the only satisfactory means of diagnosis of the condition. I think it one of those cases which are remarkable because we do not understand the several phenomena attending them, but not remarkable in the fact that there are no other cases nearly parallel with it. When the word apoplexy was used, as the probable pathological condition that had caused these symptoms, and I supposed that the writer had in his mind a cerebral hæmorrhage, or perhaps what has been called congestive apoplexy, there was recalled to my mind an interesting article that I read in a number of the *Journal of the American Medical Association*. In one of the numbers published last summer, in July or August, there was quite a number of cases recorded of complete hemiplegia and even more than complete hemiplegia, that is, the paralysis extended to more than one side of the body, in which cases the trouble was supposed at first to have been cerebral hæmorrhage but in a short time the grave symptoms cleared away, that is, while all the symptoms at first pointed to that condition, the subsequent history proved it was nothing but an attack of cerebral congestion. This patient probably both sees and hears, which fact I believe will be developed. I believe that it is a case that can be very nearly placed among the cataleptic conditions.

DR. POLLAK.—I am impressed with the belief that Dr. Parr has dealt with a malingerer. We know that the disease will often impair the physical faculties, and sometimes even destroy them, but it is not known that disease will improve the function of any organ and bring it in a few days to a perfection unattainable by years of training. We are told that the patient was aphasic, deaf, mute and blind, and these grave symptoms came on suddenly, probably from hæmorrhage or effusion in the brain, yet this man had his sense of touch so suddenly developed, as to enable him to read large type with his fingers. By virtue of my

connection with the Missouri School of the Blind for thirty-four years, I have necessarily made an especial study of the culture of the tactile sense. I have never seen, heard or read of any person being able to read ordinary print by the touch. The type used by the blind is embossed or raised, and then it requires an early training from youth to acquire the ability to read. In an extensive and careful tour of inspection of all the schools for the blind, both in the United States and in Europe, I have never seen or heard of an instance where common print was read by the touch. In the great school of Milan, Italy, I met the celebrated Signovina Banfi, who could discern colors in worsted, skeins of silk and paper. (See l' instituteur des Avengles of 1860.) I have in my possession an artificial flower which she made in my presence, selecting the colors, cutting the leaves, arrainging and tieing them. But she is the only one possessing this almost incredible faculty, and she is as far famed for it as for her magnificent vocal powers. It was the result of twenty-five years tactile culture of an extremely sensitive, highly gifted, intelligent being. To tell us that a laboring man, advanced in life, with an obtuse thickened epidemis has suddenly become possessed of the highest imaginable sense of touch, is simply absurd. Few of the adult blind are able to read, unless they are taught when they are young and have kept up the practice. When engaged in mechanical pursuits they lose the faculty of reading, even with the dot type of Braille or Waite. Had he limited his statements to the presence of aphasia, deafmutism and blindness. I might have credited it, but no pathological condition will cause such hyperæsthesia of the tactile papilli that he would be able to read ordinary print by the sense of touch. It is a clumsy case of malingering.

DR. DEAN.—I would like to ask Dr. King if he knows what size letters were used?

DR. KING.—I do not.

DR. DEAN.—I understood the doctor to say that this acute sense of touch also existed in the lower abdomen?

DR. KING.—Yes sir.

DR. DEAN.—In the first place in order to receive a correct impression, upon the palm of the hand, of an object such as the finger, it would have to be turned so that all the different points would come in contact with the hand. This is true even where there is sight; for instance, if the tip of the finger were placed upon the palm of the hand, unless one is educated, he would not know that it was round unless all the points were pressed upon the palm and if the letters were large the finger would have to pass over all of them in order to receive an impression of the outline. It is certainly a very remarkable case if the history is correctly given.

DR. POLLAK.—Dr. Bremer alluded to the Laura Bridgeman case, I knew her perfectly well and have often conversed with

her by means of the touch. She was a remarkable woman, a very bright woman, and yet it took Dr. How five or six years to teach her this faculty; she was such a woman as we do not meet with every day; her intellectual powers were something marvelous. When I spoke to her by means of the touch her face brightened up and one could almost understand what she wanted to say by looking at her; she was a very extraordinary being.

DR. KING.—Of course I am unable to answer all the questions that are propounded here to-night by various gentlemen, from the fact that the case has not been under my observation. I, like a number of gentlemen present, am a little skeptical about some of the points that had presented themselves in the case, but I can only testify to the character, standing and ability of Dr. Parr, but so much I am willing to testify in reference to him. I am inclined to think, gentlemen, from what I have heard of the case through the newspapers and from Dr. Parr, from the manner in which the attack occurred, the character of the last attack, and from his age and condition, that it is a genuine attack and not a humbug. Of course we all know that mistakes do occur and it may be that there is a mistake in this case. But the fact that the gentleman has previously had an attack of paralysis and that one of his cheeks is sunken in, would seem to indicate that the attack was genuine and not feigned. And I do not think that the case is one of ordinary congestion of the brain, nor do I believe with Dr. Bremer that there has been a severe hæmorrhage into the centres of the brain, from the fact that the man's pulse has remained about the same all the time, except under the severe electrical excitement, when it ran up very high. I am not inclined to believe everything that comes to me in the public print or otherwise, but I am rather inclined to think that we have a genuine case reported and I know that it is reported by a gentleman of intelligence and a physician of acute diagnostic powers.

DR. DICKINSON.—I do not see anything very improbable in these symptoms that have been reported in reference to this case. I might report a case which I saw myself. I received a telegram summoning me to see a gentleman who was totally deaf and blind, I do not think, however, he was paralyzed, and, although this had supervened within a very short time, I found that there was nothing to be done in the way of operative precedure, for which purpose I had been called, but I do know that the man recovered so as to be able to be around. In regard to Dr. Bremer's suggestion, I think that there must have been a general lesion, some general pressure upon the brain or else it must have been disseminated, as we have aphasia which includes the anterior lobe or the fissure of Rolando, then we have implication of the optic nerve and of the corpora quadrigemina and also of the angular gyrus, the posterior lobe and also the vault of the brain, and here again we have implication of the seventh nerve, all

these lesions would seem to indicate some general disturbance, then there is interference with the functions of the fourth ventricle and the third nerve. Taking this all into consideration it seems to me that the doctor has referred the trouble properly to apoplexy.

DR. BREMER.—I will not insist upon there being an effusion of blood; it may be that the case is one of thrombosis or disseminated hæmorrhage, and the thrombosis may have become disseminated and have attacked the various centres which have become clogged, and, in this manner, aphasia with sole blindness and sole deafness was produced. Whenever the psychical centre of vision, the psychical centre of audition become anæmic or become destroyed, the individual does not become physically blind or physically deaf, he sees objects but he cannot interpret them or he does not interpret them aright; he hears sounds but he cannot interpret them; he sees printed letters although he cannot convey the ideas to his brain of what these letters mean; he may hear a pin drop to the ground but he does not understand what anybody says to him. Since I come to think of it, it may be a case of aphasia combined with analexia; that is to say, he cannot speak and cannot read although he can write. I had an opportunity of seeing such a man, an educated gentleman. He had this queer analexia lesion; he could speak and could write but could not read what he had written, and in order to make out what he had written himself he had to tract the letters, and in that way interpret what he had written. Now it may be in this way that the man could read what there was written on the slate, he puts his fingers on it, and probably he sees, and by tracing the letters he can convey to his mind the idea that they represent. There is no doubt that this is a case of aphasia, whether it is due to rupture of blood-vessels, due to thrombosis or embolism, it is very hard to say, but about this hyperæsthesia I must say that I am very skeptical.

DR. A. GREEN.—The statement that the pulse reached 128 argues against apoplexy, but there is no question that this man was a very sick man. It is very obvious that we can so control the respirations as to make them more frequent than normal but a man cannot control his pulse, consequently, if the pulse reach 128 it is conclusive proof that the man was sick, but at the same time it argues against the idea of there being any apoplexy connected with the case. It is my impression that there may be in this case what would be called congestive fever, and, as the doctor in his letter does not give any statement as to treatment whatever, I do not think we can say much about it.

SATURDAY, May 16th, 1885.

DR. ATWOOD, President, in the Chair.

Formation of Vesical Calculus.

DR. MUDD.—I have three specimens that are somewhat un-

usual in their history. One of them occurred in a man, who, 13 years ago, at the age of twenty-five fell through an elevator and suffered a compound comminuted fracture of both legs. He was confined to bed 12 months, during greater part of this time suppuration was free and toward the end of this time he suffered with renal calculi. A number of them passed from the bladder marking their passage through the ureter. Following this there developed cystitis and later the symptoms of stone were manifest. Eight years later I sounded him for stone and found one about ¾ inch in diameter. This was about the time when Bigelow's operation was coming into vogue, and I prepared for the operation but the patient would not submit. He commenced taking rosemary tea and oak bark and retired from business, gave himself quiet and rest and recovered very considerably from the cystitis; he was again able to engage in business after two years and thought he was well. In August, 1884, the disturbance from the bladder become so great that he was forced again to rest from business. On the 13th of November, 1884, I operated upon him by Bigelow's method of rapid lithotrity. I found the bladder large with its walls not thickened, and had no difficulty in crushing the stone, except its extreme large size made it difficult to engage it in the jaws of the lithorite. The bladder was completely emptied of stone. The operation occupying, I think, about two and a half hours. The man was relieved from the pain and discomfort almost at once. There was inability to void urine for five days after the operation. He made a fair recovery from the operation. He died in April or March of this year of acute consumption. This is the stone; it weighed 1310 grains, and is one of the largest stones I have removed by rapid lithotrity, I think it is the largest that has been removed in this city.

Another case of interest is one which dates back 15 years. It was in a woman who for fifteen years had suffered from prolapsus of the uterus. Seven years ago when the case first came under observation, the uterus was prolapsed, the bladder being somewhat inverted there formed in it some stones. Upon the replacing of the uterus with the bladder they were removed and she passed a number of them subsequently. She first came under my immediate observation in June, 1884. At that time the uterus was outside the lips of the vagina and the bladder was turned literally up-side-down. Urine was expelled by the expulsive efforts of the abdominal muscles crowding down the viscera until the walls of bladder were compressed. The urethra was gone; there was nothing but the narrow rim forming the opening of the meatus. I could feel the bunch of stones about as large as an orange. The whole mass was inflamed; it was engorged with blood. The temperature, at that time, 102° or 103°. It required a number of days of treatment before I could get her in condition for any operation. The treatment consisted simply

in soothing the part and applying moderate pressure by means of elastic bands upon the part. We thus succeeded in reducing the bulk of the tumor. When ready for operation she was etherized and the uterus replaced, the meatus of the bladder dilated and I removed from it these stones which are regular in their formation, being composed chiefly of uric acid with oxalate of lime nucleus. They number 1333, of these 120 weigh more than 4 grains. Many of the smaller ones were lost in the operation. The regularity of the formation is remarkable, and the number of stone is unusual. The relief she experienced after the operation was perfect. I matained the position of the parts simply by introducing a rubber globe, one of Barnes' old fashioned oval dilators.

The third specimen was removed a few days ago from a young man aged 22, who, three years ago, on the 3rd of May, while working in a field says he felt something give way in the bladder. Difficult urination supervened and at times he was unable to pass his water. On the 5th of May he was forced to go to bed. He was very sick for some time. He suffered since with acute cystitis, great pain and difficulty in urination. He came to me a few days ago and upon examination I found that there was a mass engaged in the neck and base of the bladder; the prostatic portion of the urethra being dilated and stretched. Upon sounding him I found the stone down close to the neck of the bladder, I was in doubt as to the propriety of using rapid lithotrity, but upon injecting the bladder I found that it very readily held eight or more ounces of fluid without much tension and I made the effort to crush. I succeeded in catching the stone very quickly; now and then some soft substance kept the blades of the lithrotrite apart. I introduced an evacuating tube and washed out the bladder, but it was not very satisfactory. Every now and then a soft substance would drop into the mouth of the tube and obstruct it so that the water could not flow back into the bulb. I persisted perhaps for an hour in attempting to empty the bladder by crushing and washing, at the close of that time I concluded that I had better make a lithotomy. I could feel that there were irregularities in the surface of the bladder. Upon making the cut for lithotomy and introducing my forceps after removing some fragments of stone, I caught a soft substance and drew it out. Here it is, and I would like to have some of the gentlemen tell me what it is, to which particular species it belongs. It is the penis of some of the lower animals, but which one of them I do not know. As you see it is incrusted with the stone and measures 3½ inches in length. It has the soft tissue of the penis as well as the bone which forms a part of it. The bone is 2 inches in length but is enveloped by the soft portion. The bone was completely enveloped in fibrous tissue. The two points of interest about this to me are; first, the degree of preservation in which the soft tissues are maintained. I am satisfied

from the history which this boy gives, although he denies any knowledge of having introduced the penile bone, that this bone and enveloping tissues has been in the bladder ever since the first time that he noticed any symptoms of trouble. Yet the tissues are firm and tenacious and not rotten or decayed,—they are tough fibrous tissues. The second point is this, and it is a more important one: I have never believed that a stone would drop down into the neck of the bladder dilating that, and that the bladder would contract around it and hold it in that position leaving behind the band of constriction a distinct pocket of the bladder. I do no not believe in the hour-glass contraction which we are told occurs in these cases. Now I can understand, and it is a well recognized fact, that there is sometimes a regular prostatic stone which projects into the neck of the bladder and about this the bladder may contract and leave this band of contraction holding the stone in its position, leaving behind still a portion of the bladder sufficient to hold the urine, but that a smooth stone may ensconce itself in that position and the bladder contract about it by reason of a band forming in the wall of the bladder, leaving a larger cavity behind, seem to me improbable. I think this does not occur around a smooth vesical calculus. What is the explanation of it? I believe it occurred in this way: the bone of the penis became entangled in the walls of the base of the bladder, and was held there for a sufficient length of time to cause the walls of the bladder to become inflamed, the muscles then contracting behind the point of inflammation formed the pocket in front around the growing stone. I was deceived in this case because of the capacity of the bladder; because of the history of the case which was not that of prostatic calculus, into making an effort at rapid lithotrity. The patient is doing well and will make a good recovery.

DR. FORD.—The case in which he removed the stone from the woman consisting of that very large number of calculi is a very rare one. I recollect seeing an account in a number of the *Lancet* in which there was an equally great number of stones, but these cases are exceedingly rare. Prostatic stones are one thing, and vesicular calculi are another, and renal calculi are still a third. It is true it is difficult to designate these stones properly, because renal calculi if they have not descended from the kidney into the bladder are called renal calculi, but if the renal stone has descended into the bladder we call it a vesical calculus. And we do not always know where it originates, it is not always certain that it originated in the kidney but we have to call it a vesical calculus. The stone may not originate in the prostatic cavity but may be developed there; it may be a vesical at one time and again a prostatic calculus, so that there is a little confusion in the nomenclature of these stones and yet they are altogether different from each other. It is not only in the position which they occupy but in their formation and structure; they are chemi-

cally different, and the shape itself is different. A true prostatic calculus is formed in the ducts of the prostate; is multiple in its origin and consists of albumen combined with lime. It is very hard, almost eburnated in some cases. It is irregular in form, and the whole prostate may become a mass of stone and the prostatic urethra be impinged upon, or the stone may become engaged in the prostatic urethra and become developed there. Still a stone originally vesical in its character or renal, decending into the bladder and becoming developed there may pass the prostatic urethra and be a renal globular stone and it will retain its form. It will be developed in a globular manner and under those circumstances it will irritate the parts and cause a certain amount of constriction of the vesical neck behind. I reported to the Medico-Chirurgical Society a case of this kind in which a stone weighing more than two ounces occupied the prostatic urethra. It was a prostatic calculus which was originally a vesical calculus, but it had almost entirely been developed in the prostatic urethra, and all my efforts to pass it back into the bladder were negative. I am satisfied there was a ring constricting the smaller diameter of the stone so that I could not pass it back into the bladder without lacerating the fibres of the part and causing danger to the patient, therefore I extracted it by the median operation. Holmes, in his original work, distinctly states that vesical calculi may pass into the prostatic urethra and there continue their development and the bladder become constricted in part. He says there may be a band of fibres behind the stone just at the neck of the bladder. He distinctly states it and how Dr. Mudd can have overlooked it I do not exactly understand. It is therefore a fact, which I am borne out in, that this thing can occur. With regard to this article that is produced here, I think it is a raccoon's penis, and it may have been used by this young fellow with all the instincts of a masturbator, to irritate, and eventually may have slipped into the bladder.

DR. PREWITT.—Dr. Mudd's case calls to mind a case which I had on hand, during 1884, of stone in the bladder. On passing the sound down I struck the stone at the neck of the bladder, in fact it seemed to be in the prostatic portion of the bladder, of the urethra, and the man had been operated upon by my friend Dr. Mudd once before. He had had chronic cystitis of long standing. His health was bad and I concluded that the best thing to do was to perform lithotomy. I cut down to the stone and struck it in what seemed to be a sort of small bladder or the prostatic portion of the urethra dilated. I made a perineal section, and on examining at that time for the stone I found it was simply lodged at the neck of the bladder; that was the opening which I first found; the sound simply struck it as it entered the bladder. On passing my finger in I came in contact with the stone very readily and took it out with a pair of forceps. I then examined to see if there were any more stones and what was the condition

of the bladder and I struck a small opening, and I found I could push my finger through and get in a wide space, and at first it startled me as I supposed that possibly I had in some way made a hole in the bladder. I did not feel any of the bladder walls at first. Finally I found a cavity beyond the opening, large enough to have held an orange; I kept the opening patulous as long as I could, because there seemed to be a certain amount of roughness and unevenness, some sort of growth that I attempted to get rid of to a certain extent and nothing seemed to promise to give any relief to him but drainage from the perineum. There was a large dilatation of the prostatic portion of the urethra, and there were circular fibres at the neck of the bladder. The stones that the doctor removed from the woman's bladder seem to be composed of urates. I would like to ask him if there was any history of renal calculi primarily or whether he supposes that mass of stone originated in the bladder? Now in that condition of things we would naturally suppose that there was chronic cystitis set up and a certain amount of urine remaining in the bladder, that is, residual urine, as we always have in cases of vesical calculi.

DR. FORD.—Holmes in speaking of this condition, states that calculi so formed in the bladder descending early into the prostatic portion of the urethra and becoming there developed, are well entitled to the designation of vesico prostatic stones.

DR. MUDD.—I am not an expert in comparative anatomy, but I think that the raccoon's penis has a bone that is bifurcated. It is not the only animal that has a bone in the penile structure, as I understand that the carnivora uniformly have this bone. I doubt whether it is a raccoon's. The case that Dr. Prewitt reports I remember very distinctly. There was a history of long cystitis with the development of stone. He had been operated upon a number of years before I operated on him, and he not only had had stone previously but it had caused an ulcerated condition of the prostate, contraction of the bladder, and no doubt the doctor observed this condition of the prostate. I made no attempt in that case at rapid lithotrity, but made a lithotomy. The condition which Dr. Prewitt describes is a correct one I think with this slight exception: there was a distinct ulceration of the prostate, whether it had been excited by the long continued cystitis or the presence of the culculus pressing on it, I do not know, but there was a pocket formed in the lower portion of the prostate itself into which the stone receded and the tissues ulcerating, the stone occupied ultimately a pocket outside of the tissues of the prostate and bladder. I have no doubt that the pocket in which the doctor found the stone was outside the prostate, at least that was the condition of affairs when I operated. Supposing this to be the neck of the bladder (indicating on black board) here I found this stone in the pocket like that (indicating). The stone with penile bone for nucleus was found in the prostate, and

this part of the bladder wall. Here it was hardened and indurated forming a border. The stone was found in this pocket (indicating) and the bladder wall was contracted, hardened and thickened behind it. In connection with the case reported by Dr. Ford, the muscular fibres of the bladder surround the whole wall of the bladder; they are regularly interlaced and aggregate in circular fibres about the junction of the bladder wall with the prostate, that is, at the sphincter vesico muscle. I have in my collection a prostatic calculus, I say prostatic calculus, it is such a prostatic calculus as Dr. Ford has explained, a prostatic because engaged in the prosrate gland. Now what becomes of the stone that comes down and rests there? It will partake somewhat of the character of the dilatation. I have specimens that show this very clearly. Some times there is an obstruction to the flow of urine and, as a consequence of this, we have little dilatations or pockets occurring between the interlacing fibres. Now we may have these same pockets forming about the stone, or we may have them forming outside. What I do not believe is this (indicating) that we have these fibres forming a circular band behind the stone, grasping it and holding it forward in this position. It occurred in this case because this piece of bone engaging here, the efforts of the bladder to expel the contents set up inflammation and there was for a time considerable muscular action. The muscles about the neck behind the prostate in this case were inflamed, all the tissues were infiltrated, the walls became thickened, the mucous membrane hypertrophied, the connective tissue increased, and, as a result, we had the contraction behind. I do not understand the physiology of the formation of a stone of such a shape as the doctor exhibited, if it was developed in the prostatic urethra. If a stone is held in contact with the part and develops in that position it will take the pyramidal shape of the prostate, and you would not look for a smooth round vesical calculus to be developed in the prostate. I cannot conceive a condition by which it would be developed in such a way, and in which we would have behind it a band or contraction such as to make an hour-glass bladder. As you know the prostatic urethra is shaped something like this (indicating) with a little wider dilatation posteriorly than anteriorly. It was, finally, in an effort at micturation, pushed so far forward as to cut off the flow of urine; it was wedged into the membrano prostatic part of the urethra and I found it there upon examining him. I took a little instrument, devised by Dr. Hodgen and used very successfully by him, a little canula with two wire loops passing through; I passed these wire loops around the stone and engaged it and extracted it through the urethra somewhat to the man's discomfort but to his very great relief and without any injury to the urethra.

DR. FORD.—When a stone descends from the bladder into the urethra if it is of a certain size it will pass out of the meatus, if

it is not it may be arrested in two distinct places, one is at the apex of the prostate or it may pass on and be arrested in the membranous urethra. Under these circumstances if it continues its growth the urine will pass around it. It does not cause obstruction, but dribbling, and it is then probable that the stone which is being developed is of a spheroidal form on account of the constant dribbling of urine. Now if the stone when it first takes its position in the prostatic urethra is globular, it will continue to grow in that form. I have taken out several stones from the prostatic urethra which were decidedly globular in form; they are not distinctly fusiform or especially irregular in any way. It is a fact that this irritation of the urethra at any point will begin contraction of the muscular fibres behind it. If the irritation is in the anterior urethra the contraction will occur at the bulb, if it is behind the bulb it will occur at what we call the cut off muscles, situated just in the anterior apex of the prostatic urethra surrounding the membranous portion of the urethra. Besides that there will be a certain amount of contraction of the vesicle orifice itself. When a small stone becomes arrested in the membranous urethra there is no reason why the stone should become irregular, it has been originally ovoidal and continues to grow and swell out the parts until finally it assumes a shape of that sort (indicating). So the stone grows, and when we examine the patient we feel a hard mass occupying the site of the prostate which is distinctly felt near the membranous urethra or just at the juncture of the membranous urethra with the prostatic. That was the condition in the case that I reported. I see no reason why the stone could not be developed in the bladder to a certain size and pass into the prostate and being unable to pass any further it should be retained there and grow.

DR. MUDD.—I wish to say that the doctor has discussed an entirely different question. We all recognize the fact that we may have the formation of prostatic calculi. The question was, as to the formation of a band in the substance and wall of the bladder behind the prostate holding the stone down against the prostate, as I understood the doctor to state when he reported his case at the Medico-Chirurgical Society.

DR. FORD.—Dr. Mudd, I think, did not hear my paper; I had read the paper before he came in and he simply heard the last part of my remarks. I stated in the paper that there was a fibrous band behind the stone which prevented the stone being forced back again into the bladder; that that band was nothing but the neck of the bladder which had become dilated, but still in comparison with the size of the stone it was small and too narrow to allow the stone to pass back again into the bladder.

Book Reviews.

Article LXXXV.

De l' Aphasie et de Ses Diverses Formes par Le Dr. Bernard un volume in 8*vo* de 271 pages. avec 32 figures. Prix—4 fr (Paris: *Progrès Médical*, 1884.

Aphasia and its Different Forms, by Dr. Bernard. 8vo. pp. 271 with 32 engravings. (Paris: *Progrès Mèdical*, 1885.

This is an exceedingly interesting monograph which must have cost its author an exceedingly great amount of trouble. It is more in the nature of a compilation but so thorough and so condensed that it forms excellent and interesting reading. It is divided into ten chapters, the first of which treats of what aphasia is. In the next its history is given, tracing clear accounts back to Homer. Language and aphasia are next considered. He then enters into the question of the cortical centres of speech, of course, entering to quite an extent upon the question of cerebral localizations. Verbal blindness and deafness, aphemia, agraphia and complex aphasias form the subjects of the next four chapters, as also the etiology, prognosis and treatment. In the tenth and last chapter, we have a consideration of the medico-legal aspects of aphasia in which we find many interesting facts recorded. For instance an aphasic was permitted to testify in favor of his wife, in Hanover, by means of signs. In France such testimony is not admitted. The work shows an immense amount of research into the literature of this subject and is good, although somewhat brief on some points.

The Oleates. An Investigation into their Nature and Action. By John V. Shoemaker, A. M., M. D. 12 mo. pp. 121. (Philadelphia: F. A. Davis. 1885.

The oleates, whilst in some respects a valuable class of remedies, have been too highly extolled in other instances to permit us to repose that perfect confidence in their action which some authors like the present would ask us to. This little monograph is a very brief resumé of Dr. Shoemaker's various papers on the subject and embraces a description of the manufacture of the different preparations, their therapeutical properties and the different troubles to which they are variously adapted. Many of the preparations consist simply of salts held in suspension and do not

act by absorption, whilst others are readily so. The details, however, are so meagre as to scarcely justify publishing a book upon this subject, no matter how small. One feature which somewhat detracts from the intrinsic merits of this work is that a manufacturing firm has an advertisement immediately following the reading matter and therein it is set forth that they make and sell all the preparations mentioned in the book. Considering the price demanded for the book, this little advertising feature could well have been omitted. However, Dr. Shoemaker deserves great credit for having called attention to and reintroduced into practice a number of remedies whose value in certain cases is of the highest, although restricted to rather a small number of preparations.

A. H. O-D.

HANDBOOK OF DISEASES OF THE SKIN edited by H. V. Ziemssen, M. D. Illustrated with 80 wood engravings and color prints. Small quarto. pp. 658. (New York: William Wood & Co., 1885.

This is the last number of Ziemssen's Encyclopedia and the subscribers to this important work are to be congratulated upon the fact that instead of being published in its regular order, the various contributors delayed sending in their communications, making it the last. By this means it is up to the times, which means no small thing in dermatology. The advances made in this special department of medicine, during the past few years, have been great and are daily progressing in a manner that is wonderful. Our space is too limited to make a detailed survey of this important and interesting addition to dermatology. If there is any fault to be found with the work it lies in the fact that many of the rarer diseases are carefully detailed whereas the more common ones are often summarily disposed of. This, whilst an advantage to the dermatologist is often a positive disadvantage to the general practitioner. As an illustration we may cite acne which is included in four or five pages. Its importance, on the other hand, is such that an American writer is shortly about to issue a work on this disease.

The rôle of bacilli in the various morbid processes connected with the skin are fully considered and the relative pathological importance in different diseases clearly shown. Although the chapter on syphilis was published before Lustgarten announced his method of demonstrating the bacilli of syphilis, such good reasons are adduced for their etiological importance that it seems almost a prophecy, thus showing the exact method pursued in investigation and reasoning.

The wood engravings are, in the main, good, although those in red and black are not up to what would have been expected.

Especially is this true where an attempt has been to delineate skin troubles. The microscopic representations, however, are excellent and true to nature, but few being diagrammatic.

Among the list of contributors we find the following well known names: P. G. Unna, v. Ziemssen, Auspitz, Schwimmer, Verèl, Gebor, Lesser, Weyl, Neisser, Michelson and P. Babes. The Anatomy and development of the skin is the most important chapter, taking up the first 68 pages. Dr. Unna has shown great capabilities in this. The editor of the book contributes the chapter on physiology, it being rather short. An important chapter, that on the general pathology and therapeutics of the skin, receives elaborate treatment at the hands of Auspitz. His nomenclature is introduced here. After these general subjects of discussion, the different diseases of the skin are discussed generally, one group being handled by one author.

Whilst we cannot help admiring the liberality of Messrs. Wm. Wood and Co. in making this volume a presentation copy to their subscribers to the Encyclopedia, we cannot but deprecate the fact that many, especially interested in skin diseases, will not have an opportunity of obtaining this valuable addition to the literature of these affections. It is to be hoped that a special edition will be published in the near future so as to enable all who wish, to obtain a copy of the work representing the most advanced ideas of German dermatologists.

In connection with this it would be well to call the attention of all subscribers to Ziemssen's encyclopedia to send in their names as soon as possible to the publishers who will take pleasure in forwarding them a copy of this volume free of cost.

A. H. O-D.

NEURALGIA AND THE DISEASES THAT RESEMBLE IT. By Francis E. Austin, M. D., London. pp. 233. Price $1.25. [New York and London: G. P. Putnam's Sons. 1885.

The author takes the ground that neuralgia is not an "offshoot of the Gouty or Rheumatic diatheses, still less a mere chance symptom of a score of different and incongruous diseases." In order to prove his theory he pictures the most of the diseases so often called neuralgia, and, consequently, after a careful perusal, the reader can pick out the points in which the different disorders differ from neuralgia. 184 pages are devoted to the clinical history; complication; Pathology and Etiology; Diagnosis and Prognosis; and Treatment of neuralgia.

He thinks that he has "shown the very high probability that the common starting point both of the neuralgia and its vasomoter secretory, and trophic complications, was in the sensory root of the trigeminus." He also thinks: (1) That the assumption of a positive material centrific change as the essential mor-

bid event in neuralgia is almost forced upon us; (2) that, whereas the morbid process, if centrific, is *a priori* infinitely more likely to be seated in the posterior root of the painful nerve, or the gray matter immediately connected with it, than anywhere else."

This book is well worthy the careful study of every physician.

WILSON CLINICAL CHART, put up in Blocks of 50 Clinical Charts. Price 50cts. By James C. Wilson, M. D. [Phila.: J. B. Lippincott Co. 715 & 717 Market St. 1885

This chart, designed for the convenient, accurate and permanent daily recording of cases in hospital and private practice, is so arranged as to be an invaluable aid to all practitioners who desire to avail themselves of every opportunity to improve themselves and thereby benifit their patient. Every practitioner should keep such a record of his cases as will enable him to review his cases at any time; in doing so he always benefits himself. While this chart would not answer the purposes of the specialist, yet it is the best we have seen for the general practitioner.

HOW TO DRAIN A HOUSE; Practical Information for Householders. By Geo. E. Warning. Jr. M. Inst. C. E. pp 222. Price $1.25 [New York: Henry Holt and Co. 1885

Ample instruction is given in the way a house ought to be drained, and, after a study of the different methods, one is able to see, if he lives in a city, whether his home is properly drained or, if he intends building, how it ought to be drained, or, living in the country, how to properly construct and place his drains so that he will derive the geatest benefit from them.

More and more attention is being given to this propoylactic measure and the resulting good is easily seen.

MODERN THERAPEUTICS OF THE DISEASES OF CHILDREN, with observations on the Hygiene of Infancy. By Joseph F. Edwards, M. D. 8vo. pp. 346. [Phila.: D. G. Brimton, 115 S 11th, 1885.

"It is the purpose of this work to present in a concise manner the results of the modern applications of therapeutics (in its wider sense) to the Diseases of Childern. * * * Journals, monographs, and treatises on the subject have been careftlly scanned, so as to glean both that which long experience has proven to be advantageous, and that which recent discovery has introduced with a fair promise of value.

"No similar work of anything this extent has been published devoted to this particular field.

As will be seen from the above extract from the preface, this work is a compilation of the views of home and foreign authorities on this subject. Many valuable prescriptions are given.

A SYSTEM OF PRACTICAL MEDICINE. By American Authors. Edited by William Pepper, M. D., LL. D. Assisted by Louis Starr, M. D. Vol II. General Diseases (Continued) and Diseases of the Digestive System. Royal Octavo. pp. 1312. [Phila.: Lea Brothers & Co. St. Louis: E. Holdoway & Co., 607 N. 7th str. 1885

The General Diseases treated in this massive volume are, Rheumatism, Gout Rachitis; Scurvy; Purpura; Diabetes Mellitus; Scrofula and Hereditary Syphilis. Those of the Digestive System: Diseases of the Mouth and Tongue; of the Tonsils, of the Pharynx; of the Œsophagus; Functional and Inflammatory Diseases of the Stomach; Simple Ulcer of the Stomach; Cancer of the Stomach; Hæmorrhage from the Stomach; Dilatation of the Stomach; Minor Organic Affections of the Stomach; Intestinal Indigestion; Constipation; Enteralgia; Acute Intestinal Catarrh; Chronic Intestinal Catarrh; Cholera Morbus; Intestinal Affections of Children in Hot weather; Pseudo Membranous Enteritis; Dysentery; Typhilitis, Perityphilitis, and Paratyphilitis; Intestinal Ulcer; Hæmorrhage of the Bowels; Intestinal Obstruction; Cancer and Lardaceous Degeneration of the Intestines; Diseases of the Rectum and Anus; Intestinal Worms; Diseases of the Liver; Diseases of the Pancreas; Peritonitis; Tabes Mesenterica. Among the list of Contributors to this volume are found the following well known names, J. E. Atkinson, R. Bartholow, W. H. Draper, R. P. Howard, A. Jacobi, J. Leidy, J. L. Smith, J. Tyson, J. W. White, and others. The Illustrations, numbering 27, are clear and such as will add value to the articles in which they occur.

While the reader, if an original thinker, is bound to hold opinions or theories different from some of the Contributers to this library of Authors, yet we know of no series of works on Practical Medicine that will be so valuable when it is completed as this.

This is entirely an American work, by American authors and intended and adapted to the wants of the American practitioner of medicine.

We would recommend every practitioner and student to possess himself of this series.

BERLIN AS A MEDICAL CENTER. A Guide for American Practitioners and Students. By H. R. Bigelow, M. D. Reprinted from the *N. E. Med. Monthly*. pp 117, with a good map of

the City of Berlin. [Sandy Hook, Conn.: New England Publishing Co., 1885.

We would recommend every one who intends to visit this center of learning to peruse this valuable guide. By doing so he will be able to obtain all the informative that he will require concerning everything connected with such a trip, besides saving himself time, worry and money.

Books and Pamphlets Received.

ARTICLE LXXXVI.

Does Tobacco Produce Amblyopia? By W. Franklin Coleman, M. D., M. R. C. S., Eng [Reprint, *Md. Med. Jour.*

State Provision for the Insane. By C. H. Hughes, M. D., [Reprint, *Alienist and Neurologist.*

On Oxygen as a Remedial Agent. By Samuel S. William, A. M., M. D., [Reprint, *Med. Record.*

Report of Committee on School Hygiene in Tennessee. By Daniel F. Wright, M. D., [Reprint, Second Report of the State Board of Health.

The Physiological Action of Cocaine on the Common Frog, with Special Reference to its Action on Organs and Tissues. By Hermann M. Biggs, A. B., M. D., [Reprint, *Jour. of the Am. Med. Ass.*

Western Reserve Univ. Medical Department, Cleveland, O. Announcement for 1885-6.

Notes on the History, Manufacture, Uses and Properties of Hydrochlorate of Cocaine. Compliments of McKesson and Robbins.

International Medical Congress, Ninth session, to be held in Washington, D. C. in 1887. Rules and Preliminary Organization.

Announcement of Newland's College of Midwifery and Lying-in Institute for 1885. St. Louis Mo.

The spinal Arthropathies (a clinical report of 6 cases of Charcots Joints) with illustrations. By A. Sydney Roberts, M. D., [Reprint, *Med. News.*

The Physiological effects and Therapeutical Uses of Hydrastis. By Roberts Bartholow, A. M., M.D., LL. D. [Reprint, *Drug. and Medicines of North America.*

Experimental Researches on Cicatrization in Blood vessels after Ligature. By N. Senn, M. D., of Milwaukee, Wis., extracted from the Trans. of the Am. Surgical Ass. Vol II. 1884.

Vital Statistics in Tennessee, a report by J. D. Plunket, M.D. of Nashville, Tenn.

Typhoid Fever and Low Water in Wells. By Henry B. Baker, M. D., of Lansing, Mich., [Reprint from Report of Mich., State Board of Health for 1884.

Medical Jurisprudence in Divorce. By Carl H. Van Klein, A. M., M. D., of Dayton, O. [Reprint, *Jour of the Am. Med. Ass.*

De L' Aphasie et de ses Diverses Formes par Le Dr. Bernard, Paris, Un volume in 8o de 271 pages, avec 32 figures—Trix 4 fr. [Reprint, *Le Progrès Mèdical.*

A Case of Primary Epithelioma of the Tonsil. By F. Donaldson, Jr., B. A., M. D., [Reprint, *Med. Record.*

Specialties and their Relation to the Medical Profession. By L. Duncan Bulkley, A. M., M. D., [Reprint, *Jour. of the Am. Med. Ass.*

A Lecture on Sterility. By W. H. Wathen, M. D., [Reprint. *Med. & Surg. Rep.*

Epilepsy. By L. W. Baker, M. D., [Reprint, *J. of Nerv and Mental Dis.*

Valedictory Address before the N. Y. Academy of Med., 1885. By Fordyce Barker, M. D., LL. D.

Hernia Cerebri. E. J. Beall, M. D.

Disinfection and Disinfectants. Preliminary Report made by the Comm. on Disinfectants of the Am. Pub. Health Assoc.

A Description of the Improved Sonometer.—Opium Eating. By Martin F. Coomes, M. D.

Cocaine in Diseases of the Nose and Thoat. By Geo. W. Major, B. A., M. D. [Reprint, *Canada M. & S. J.*

Catalepsy in a Child Three years old. By A. Jacobi, M. D., [Reprint, *Am. J. of the Med. Sciences.*

Treatment of Mastitis by Bandaging and Rest. P. A. Harris, M. D., with cuts. Rept. *Am. J. of Obstetrics.* [New York : Wm. Wood & Co., 1885.

Notes and Items.

Article LXXXVII.

Levis's Metallic Splints. For Fracture of Lower End of the Radius. From an Article by R. J. Levis, M. D., Surgeon to the Pennsylvania Hospital, and to the Jefferson College Hospital.

The correct nature and mechanism of the ordinary form of fracture of the lower end of the radius is now, after much controversy, generally admitted and properly comprehended. With this proper understanding the indications of treatment become rational and decisive.

In the usual and very characteristic fracture of the carpal end of the radius the primary line of the fracture is, with little tendency to deviation, transverse in direction. Associated lines of fracture are generally those of comminution of the lower fragment, and are caused by the upper fragment being driven vertically into it and splitting it, usually in directions towards its articular surface.

The displacement of the lower fragment is towards the dorsal aspect of the forearm, and its articular surface is inclined in the same direction, abnormally presenting backwards and upwards.

The mechanism of the fracture is its production by falls upon the palm of the hand, which, with the carpus, undergoes extreme extension, and the fracture is caused by an act of leverage or transverse strain. This direction of force has also been called cross-breaking strain.

In this fracture, actual displacement of the lower fragment may not exist at all, or it may be to the extent of complete separation from contact of the broken surfaces, varying with the amount of force applied and with the retaining influence of the surrounding dense structures.

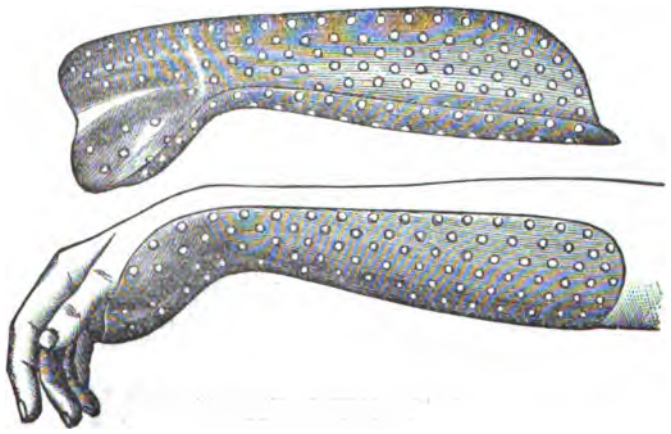
The first essential of the treatment of fracture of the lower end of the radius is the complete reduction of the displacement. The action of replacement must be directed to the lower fragment itself. The reduction of the fracture can usually be thor-

oughly effected, under anæsthesia, by strong extension applied to the hand, associated with forced flexion of the wrist, and with pressure applied directly on the dorsal surface of the lower fragment. Unless vertical splitting or comminution of the lower fragments exists, the maintaining of partial flexion of the wrist, with pressure of a pad on the dorsal surface of the fragment, will prevent return of deformity.

With the object of retaining the apposition of the fractured surfaces, by overcoming displacing forces, I have practiced for many years on the principles involved in the splint here illustrated, the application of which will not require much description.

In the treatment of fracture of the lower end of the radius it is essential that proper allowance be made for the curvature of the anterior or palmar surface of this part of the bone. This is insured in the splint which I have devised, which follows cor-

Figs. 5. and 6.



rectly the radial curvature; and the fixing of the thenar and hypothenar eminences of the hand in their moulded beds, maintains the splint immovably in its correct position with reference to the radial curve.

To neglect of complete primary reduction of the displacement of the lower fragment, and to inefficient restoration and retention of the normal radial curve, are due the frequent unfortunate sequences of this fracture.

The splint is made of copper, so as to be readily conformable by bending to suit the peculiarities of size and form of forearms,

The slight roughness left on back of splint from perforations is for the purpose of keeping the bandage from slipping. It is nickel-plated to prevent oxidation.

The splint will usually fit the forearm so accurately that but little padding will be required, and a piece of woven lint, or of cotton or woolen flannel is all that is necessary for its lining. No dorsal splint is needed, but, as before referred to, a small pad will, in most cases, be required over the dorsal surface of the lower fragment. For retention of the splint an ordinary bandage, two inches and a half to three inches wide, is all that is necessary.

This splint has the merits of being applicable to all cases of fracture of the lower end of the radius, and also to many other injuries involving the forearm and wrist, and, as now supplied, is very inexpensive. This excellent splint can be obtained of J. Ellwood Lee, of Conshohocken, Pa.

DR. E. F. Henderson has moved to Los Angeles, Cal. Those who know the Doctors reputation as a specialist in Diseases of the air passages will be glad to hear of the doctors more, as this is the locality where patients afflicted with such diseases are usually sent, and it is a comfort to know that ones patients are falling into trusty hands.

AMNESIC APHASIA.—Dr. W. C. Wright reports a case (*Col. & Clin. Record*) of Amnesic Aphasia successfully treated by hypodermatic injections of strychina, gr. $\frac{1}{48}$, iodide of potassium as a tonic and, later, he gave ten minims of the following compound hypodermatically twice a day:

℞ Coniin.,.....gr. j.
Morphia Sulph.,.....gr. jv.
Acid Carbol.,.....gr. vj.
Aquæ Destil.,.....℥j. M.

LEUCORRHŒAL DISCHARGES FROM ROLLER-SKATING.—Dr. Von Klein says:

"Mrs. L. consulted me about two of her little girls. Anna, aged ten, and Eva, aged twelve years. The mother called my attention to a leucorrhœal discharge which she lately observed on their clothing. An examination of the parts verified the mothers statement. I told her I could not account for it, as I had already seen it in children younger than hers, but the lady,

who is of rather extraordinary intelligence, advanced a theory that their recent excessive indulgence in roller-skating brought on their affliction. Certainly, I partly concided with her sentiments. When she returned home and spoke to other ladies about the matter it brought out the fact that there were many others afflicted the same way. In fact, I examined nine children in forty-eight hours, whom I found affected with leucorrhœa. These children were all roller-skaters, from nine to sixteen years of age. Their mothers steadfastly maintained that they were not afflicted before they commenced the so-called exercise. I have reason to believe that the practice of roller-skating exercise is injurious to young females by reason of excessive movements of the lower extremities, especially of the pelvic organs, including the walls of the vagina. I trust the profession everywhere will record cases of this nature that may come under their observation, which will, I am sure, reveal many valuable pathological changes, caused by the exercise of roller-skating."—*Boston M. & S. J.*

EPISIOTOMY.—DR. W. P. Manton, in the *Am. Jour. of Obstetrics* thus concludes an able article headed "A Pica for Episiotomy."

"In the foregoing pages I have attempted to show:

1st. That the percentage of perineal ruptures is very large.

2d. That certain conditions of the maternal soft parts, etc., predispose to rupture.

3d. That episiotomy diminishes the frequency of these ruptures to a minimum, and thereby rescues a corresponding number of women from a greater or lesser amount of suffering.

4th. That only in very exceptional cases does rupture take place after episiotomy.

5th. That the danger of infection is no greater where episiotomy is done than where it is not.

If the above statements are correct, there is no excuse for the accoucheur who allows a perineum to rupture without having first done episiotomy for its possible prevention."

CONCENTRATED FOODS.—Medical men are now recognizing the value of malt extracts as foods in cases of deficient assimilation. That their use is extending may be taken for granted by the number of exhibitors of concentrated foods in the exhibition at South

Kensington last year. Important improvements have recently been made in the manufacture of malt extracts, which are now prescribed in a variety of forms. One of the most effective combinations in dyspepsia, cholera infantum, and all diseases resulting from imperfect nutrition is Maltine with pepsine and pancreatine, containing, as it does, three of the all-important digestive agents, diastase being one of the constituents of Maltine. Dyspepsia in most cases will be found to yield to the medicinal properties of this combination, while the system is invigorated by its nutritive qualities. It will be found a useful remedy also for constipation and chronic diarrhœa resulting from mal-nutrition. Not only is Maltine of itself of great value in certain cases, but it may be combined with the most valuable alteratives known—such as iodides, bromides, and chlorides, and is found to be a remedy of high value in all depraved conditions of the blood. The Maltine manufactured by the Maltine Manufacturing Company of New York bears a high name, and this has been still further emphasized by the award of the Gold Medal of the Health Exhibition, London, for their malt extract known as Maltine (malted wheat, barley, and oats,) the only preparation composed of these three cereals. Professor Charles R. C. Tichborne, after an examination of the principal unfermented extracts of malt in the market, finds that Maltine is the richest in two of the most important ingredients in these foods—namely, the phosphates or bone-formers, and that peculiar farinaceous digestive agent called diastase. Maltine may be said to consist of about eighty *per cent.* of pure food in its most concentrated and assimilable form. This eighty *per cent.* may be divided as follows: five and a half *per cent.* of flesh-formers; seven *per cent.* of heat givers, two *per cent.* of bone-formers; add to this the diastase, which imparts to it the curious power of digesting all farinaceous food outside itself, and we have in Maltine a most valuable adjunct to our invalid diet. In respect to the diastase, Maltine seems remarkably energetic, and at the temperature of the human body one part liquefied "twenty parts of starch in two minutes," and had completely changed or digested that body in about an hour. Maltine possesses all the characteristics of a cereal extract as prepared from the grain, and there can be no question about the genuineness of this preparation. It is only necessary to consult any work upon dietetics to see that there is considerable difference in the composition of the various grain crops. By combining these three important substances—barley, oats, and wheat—a food is obtained which represents the average composition of the three cereals, and that food already digested for use, a condition of immense value to the physician in those special cases where the digestive functions are impaired.

Leicester & London, Jan. 1st, 1885.

Midland Medical Journal.

410
903X